

The School Executive

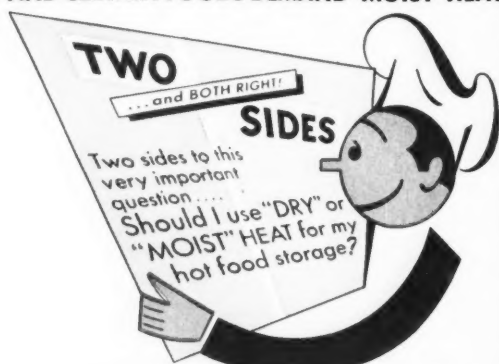
WILLARD E. GIVENS

page 39



JULY 1952

FACTS: • CERTAIN FOODS "STORE"
BETTER WITH "DRY" HEAT;—
AND CERTAIN FOODS DEMAND "MOIST" HEAT



BUY

SECO*-MATIC

and *get both!*

*Trade Mark Reg.

**DRY OR MOIST
SECO*-MATIC
DRY OR MOIST**

DRY OR MOIST CIRCULATING HEAT **HOT FOOD TABLE** COMBINATION FOOD STORAGE

PATENT APPLIED FOR



Showing 5-opening Gas; Enclosed Base, Sliding Doors; with Glass Protector Guard and S. S. Shelf.

12 Basic Gas or Electric Models; 2 to 7 top openings; Open, Semi, and Enclosed Base
ALL MODELS A. G. A. OR U. L. APPROVED

Yes... SECO-MATIC HOT FOOD TABLES are the answer to BOTH types of HEAT—Either "Dry-or-Moist" heat... convertible or combination—and ALL from the SAME table operation... with the TYPE OF REGULATED Sectional heat BEST SUITED for EACH food!

**A
N
N
O
U
N
C
I
N
G**

YOUR **KEY** TO... **GREATER**

**COFFEE
CAPACITY**

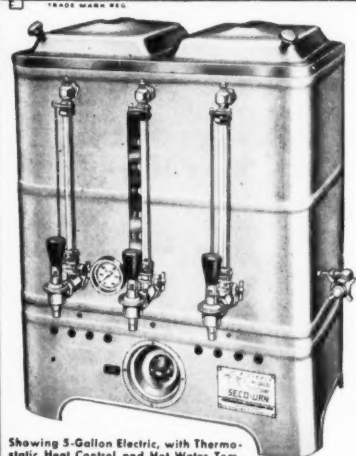


SECO*-URNS are SQUARE inside and out—offering Up to 50% GREATER COFFEE AND WATER CAPACITY**—Utilizing every inch of MINIMUM stand or counter space!

**Over Conventional Round Liner Twin Urns

**DIE-STAMPED STAINLESS STEEL
SQUARE
TWIN COFFEE
URNS**

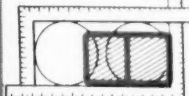
SECO-URN



Showing 5-Gallon Electric, with Thermostatic Heat Control and Hot Water Temperature Gauge.

12 Basic Gas, Electric, Steam Models; 2-3-4-5 Gallon Capacities.

**More Coffee served
in LESS Space
at LESS Cost!**



MAIL TODAY FOR NAME OF NEAREST SOUTHERN DEALER

**BUDGET
PRICED**

- ☐ Send SECO-MATIC Catalog SDM 6850 U
☐ Send SECO-URN Catalog STU-50 U
☐ Have Representative Call

Name

Address

City.....Zone.....State.....

Attention.....
Test Series Adv. T. P-2

SOUTHERN EQUIPMENT CO. Custom-Built by Southern 5017 S. 38th ST. LOUIS 16, MO., U.S.A.

The School Executive

JULY 1952

CONTENTS

EDITORIALS

Preview of August	5
Outdoor Education	Walter D. Cocking 7
Keynotes	9

OUR SCHOOLS

Community Recreation Programs and Their Relation to Schools	Raymond H. Ostrander 19
--	-------------------------

A TRIBUTE

Willard E. Givens	39
-------------------------	----

ADMINISTRATION

Superintendents Appraise Pre-Service Training	E. C. Bolmeier 42
Teacher Orientation	Carleton M. Saunders 49
Training Superintendents	Kenneth G. Coulter 55
Reciprocals of a Technical Assistance Program	Wallace H. Strevell 63

SCHOOL PLANT

A New Design for Multi-Functional Classroom Tables .	Alexander H. Howard Jr. 46
"They've Thrown a Little More Light on the Subject".	James A. Sensenbaugh 56
School Plant News and Views	62

SCHOOL PROGRAM

High School Marks: Comparative or Individual?	Edward H. La Franchi 51
Music in Schools	Raymond Schuessler 59

PLANNING SECTION

School Building Practices and Problems	65-78
The Functional and Beautiful School Building	H. H. Waechter 66
Pittsfield's New Schools	Edward J. Russell and S. W. Haynes 68
Sanford Plans and Acts	Neil V. Sullivan 71
City and School Plant Planning Go Hand in Hand	Russell A. Holy 74
Lower Ceilings Mean Lower Costs	R. W. McKinley 76

SCHOOL FINANCE

School Building Costs and Bond Prices	Harold F. Clark 88
---	--------------------

SCHOOL LUNCH

Planning and Equipping the School Lunchroom	Ruth D. Heckler 93
---	--------------------

EDUCATIONAL NEWS

Spotlight—News of the Educational Field	79
The Washington Scene	87

REFERENCE MATERIAL

Conference Calendar	18
Your Professional Library	90
School Equipment News	95
Manufacturers' Catalogs	108
Audio-Visual Aids	110

Cover photo courtesy National Education Association

BOARD OF EDITORS: WALTER D. COCKING, CHAIRMAN • N. L. ENGELHARDT • WILLIAM G. CARR

EDITORIAL STAFF:

Associate Editor, Naomi Fisher • Assistant Editor, Marguerite Spataro • Assistant Editor, Esther Handler
 Special Editor, Belmont Farley • Consultant, Harold F. Clark • Book Reviews, Betty K. Johnson
 Art Director, Henry E. Salloch • Production Manager, Helen E. Weyl
 Circulation Director, John G. Stuart • Research and Service, Lillian E. Kiley

Maintenance Budget STABBED



Stop This Crime Wave with G-E Textolite* Plastics Tops

G-E Textolite is steel-hard — withstands heavy abuse. No need to resurface desks frequently when they are topped with tough G-E Textolite. They'll last years longer — save you many dollars on maintenance.

Whether ordering new desks or refinishing old, be sure you get G-E Textolite tops. Mar and stain-proof — immune to ordinary acids — easily cleaned with a damp cloth — available in attractive colors or wood grains.

Write for literature and installation information.

*Reg. U.S. Pat. Off.



G-E Textolite school pattern — the only pattern designed especially for school use in cooperation with the famous NELA Park lighting laboratories.

NATIONWIDE Roddiscraft WAREHOUSE SERVICE

Cambridge 39, Mass. • Charlotte 6, N. C. • Chicago 32, Ill.
Cincinnati 2, Ohio • Detroit 14, Mich. • Kansas City 3, Kan.
Los Angeles 58, Calif. • Louisville 10, Ky. • Marshfield, Wis.
Miami 38, Fla. • Milwaukee 8, Wis. • New Hyde Park, L. I.,
N. Y. • New York 55, New York • Port Newark 5, N. J. • Phil-
adelphia 34, Pa. • St. Louis 16, Mo. • San Francisco 24, Cal.

Roddiscraft

RODDIS PLYWOOD CORPORATION
Marshfield, Wisconsin

The

School Executive

Preview of August

AUGUST is a particularly good month to be outdoors. It is a good time also to consider programs of outdoor education. Dr. L. B. Sharp tells us in the green sheet what outdoor education is all about and describes some interesting programs. The planning section continues our presentation of successful practices dealing with the school plant. Don't miss Dr. Grambs' and Dr. Patterson's article on *Why Scapegoat our Schools?* It packs a punch. Ralph McLeary's article on furniture design is most interesting. In the August issue, we are proud to present a tribute to William G. Carr as he enters his new duties as Executive Secretary of the NEA. Dr. Carr also presents his views in answer to a series of questions submitted to him by the editor. You will find many other valuable materials—and of course all the regular features.

Sincerely,

Walter D. Cocking
Chairman, Board of Editors

EDITORIAL AND EXECUTIVE OFFICES

470 Fourth Avenue, New York 16, N. Y.

EDGAR J. BUTTENHEIM, Publisher

PRENTICE C. FORD, Vice-President and General Manager

EDWIN WAGNER, Secretary and Treasurer

FRANK H. LAAVY, Advertising Manager

BRANCH OFFICES:

Chicago 6, Illinois—Daily News Building

Frank J. Raymond, Vice-President

John A. Raymond

Los Angeles 27, California—2238 Ben Lomond Drive

Albert T. Miller, Pacific Coast Manager

EDITORIAL ADVISORY BOARD

Terms Expire December 31, 1952

FRANCIS L. BACON

Professor of Education, University of California, Los Angeles, California

RAYMON W. ELDRIDGE

Elementary School Principal, Brookline, Massachusetts

ABEL A. HANSON

Executive Officer, Teachers College Development Program, Columbia University

DRUMMOND J. McCUNN

Superintendent of Contra Costa Junior College District, Martinez, California

E. B. NORTON

President, State Teachers College, Florence, Alabama

Terms Expire December 31, 1953

CLYDE A. ERWIN

State Superintendent of Public Instruction, Raleigh, North Carolina

FRED W. HOSLER

Superintendent of Schools, Lynnwood, California

E. W. MONTGOMERY

Superintendent, Phoenix Union High Schools, Ariz.

PAUL R. MORT

Professor of Education, Teachers College, Columbia University

WAYNE O. REED

Assistant Commissioner, U. S. Office of Education

Terms Expire December 31, 1954

L. D. HASKEW

Dean, College of Education, University of Texas, Austin

E. L. MORPHET

Professor of Education, University of California, Berkeley, California

EARL E. MOSIER

Dean of Instruction, Michigan State Normal College, Ypsilanti, Michigan

VIRGIL M. ROGERS

Superintendent of Schools, Battle Creek, Michigan

MAURICE F. SEAY

Director, Department of Education, University of Chicago

Terms Expire December 31, 1955

R. L. HOPPER

Professor of Education, University of Kentucky, Lexington, Kentucky

JOHN E. IVEY, JR.

Executive Director, Southern Regional Education, Atlanta, Georgia

M. S. KIES

County Superintendent of Schools, Milwaukee, Wisconsin

HARRY J. LINTON

Superintendent of Schools, Schenectady, New York

L. H. SHEPOISER

Superintendent of Schools, Mason City, Iowa

Terms Expire December 31, 1956

E. ALLEN BATEMAN

State Superintendent of Public Instruction, Salt Lake City, Utah

WALTER K. BEGGS

Professor of Education, University of Nebraska, Lincoln, Nebraska

DANIEL R. DAVIES

Professor of Education, Teachers College, Columbia University

L. G. DERTHICK

Superintendent of Schools, Chattanooga, Tennessee

EDWARD J. RUSSELL

Superintendent of Schools, Pittsfield, Massachusetts

THE SCHOOL EXECUTIVE is published monthly at Orange, Conn., by the American School Publishing Corporation, Edgar J. Buttenheim, President; Prentice C. Ford, First Vice-President; Frank Raymond, Second Vice-President; Edwin Wagner, Treasurer. Entered as second-class matter at the Post Office at Orange, Connecticut, under the act of March 3, 1879. Subscription rates: United States—1 year, \$3.00; 2 years, \$5.00; 50¢ per copy; back or reference issues \$1.00 per copy. Foreign Countries—\$5.00 a year. Members of "Audit Bureau of Circulations" and Educational Press Association. Copyright 1952, by American School Publishing Corporation, 470 Fourth Avenue, New York 16, N. Y.

NOW... Hotpoint's Educational Plan Includes

Scientific Kitchen-Laundry Planning Service



Hotpoint's Kitchen-Laundry Planning Specialists will help you plan modern Home Economics classrooms around the convenient Work-Saving Centers pioneered and developed by the Hotpoint Home Economics Institute.



Most schools today recognize the fact that modern electric home appliances

play an increasingly important part in bringing Better Living to Modern American Homes. With all-electric kitchens and home laundries becoming more and more prevalent, your students should know about

the operation of these modern electric servants. It follows, naturally, that to teach them properly, your major electric appliances must be the most modern and should be equipped with the newest features. In addition, they should be taught in uncrowded classrooms, scientifically arranged for proper teaching.

You owe it to yourself, and to your students, to make your Home Economics Laboratory a credit to the school. Why not call in a Hotpoint Kitchen-Laundry Planning Specialist, while school is closed for the summer, and have him help you plan a scientifically arranged, modern Home Economics classroom. Just return the coupon and your inquiry will be promptly answered and with no obligation.

Kitchen and Laundry Planning Dept. S.B.J.

HOTPOINT INC.

5600 West Taylor St., Chicago 44, Illinois

We are interested in learning more about your Kitchen-Laundry Planning Service.

Name _____

School _____

Address _____

The Hotpoint EDUCATIONAL PLAN

Hotpoint's Educational Plan includes a Scientific Kitchen and Home Laundry Planning Service. In addition, it provides that accredited educational institutions may purchase for instructional purposes, any of the complete line of modern Hotpoint Major Home Appliances at a saving of nearly 1/2 the retail cost. Also, in order that the major appliances in your school may be the newest, Hotpoint will replace, for an indefinite period and at no cost to the school, any piece of Hotpoint Equipment (except cabinets) with comparable new models.

Hotpoint Inc.

(A General Electric Affiliate)

5600 West Taylor Street • Chicago 44, Illinois

RANGES • REFRIGERATORS • DISHWASHERS • DISPOSALS • WATER HEATERS • FOOD FREEZERS • AUTOMATIC WASHERS • CLOTHES DRYERS • ROTARY IRONERS • CABINETS

Outdoor Education

SOME understanding of nature and her ways is basic to man's ability to get along with his environment. Furthermore, it is necessary for man to learn to live in harmony with nature if he is to find comfort and emotional security. It is also a demonstrable truth that the out of doors tends to lift one's spirit and aspirations, and causes him to reach for higher goals and strive to attain them. People attuned to nature are happy people, understanding people, sympathetic people.

It would seem that in today's world most of us are being more and more conditioned to do our work and our play, to live our lives indoors. The outdoors would seem to be a necessary evil, one which we avoid as much as possible. And when we find ourselves in the outdoors we proceed as strangers in an unknown world (which, indeed, it is for most of us).

My plea is that there is real need for people, young and old, in this world of today with its technology and resulting gadgets, to learn to live in the outdoors, to understand it, to find the joy and sense of relaxation which surely comes to those who find themselves in harmony with their environment. I believe it is one of the great tasks of the school, as well as one of its great opportunities, to help people to understand the out of doors which lies all around them. Not necessarily the out of doors of regions afar off, but more particularly the out of doors in our own back yards and immediate neighborhoods.

FOR several years the W. K. Kellogg Foundation has been interested in furthering this idea and has conducted a number of interesting demonstrations of school programs geared to life in the out of doors. It is not too surprising, then, to find the state of Michigan taking a very considerable leadership in this development. With the aid and encouragement of the state department of education many school systems in Michigan have developed extensive programs of camping and outdoor education both for elementary and secondary school students. Among other school systems which have developed worth-while programs are Parker School Districts, Greenville, South Carolina; Long Beach and San Diego, California; and Tyler, Texas. In Florida, the state departments of education and conservation are sponsoring programs in local com-

munities. Several schools in the Tennessee valley have going programs. From here and there in midwestern states come reports of programs in operation. All this is encouraging. Yet, it is still news when a school launches such a program. It is a sign that programs of outdoor education are unusual and mark a departure from the traditional.

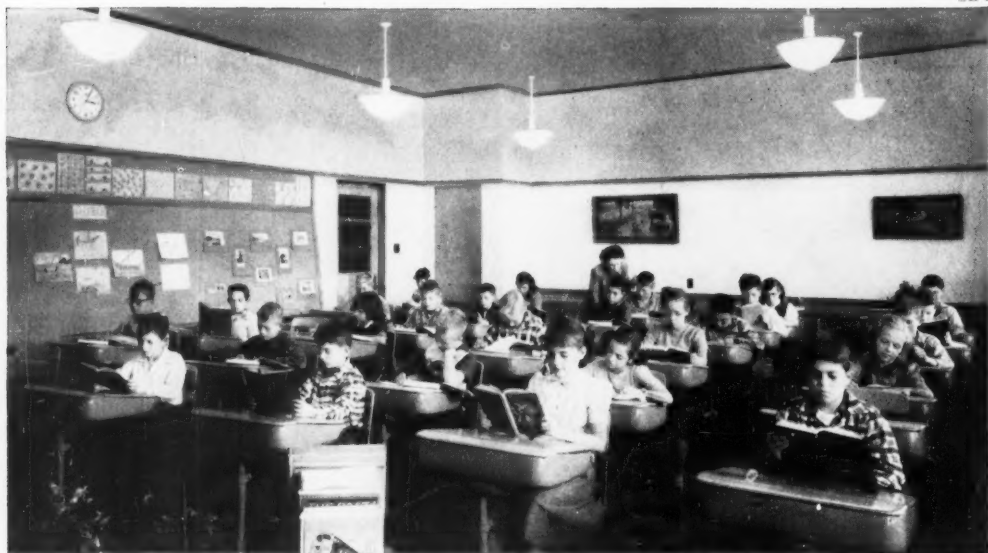
It would seem unnecessary to argue the value and need of such programs. Most of us would agree, I am sure, that boys and girls need to know and to understand their environment. Regardless of where people live or what their vocation is, environment plays a part.

LIFE in the outdoors, as most other things, has to be learned. It is almost as true of rural folk as of urban dwellers. Understanding of soil, water, shrubs and trees, grass and flowers, birds and wild life is an essential part of the lives of all of us. How to get along in the outdoors is a necessary part of our development. Some knowledge of and experience with weather and climatic conditions are prerequisites to safe and satisfactory living. Experience and some understanding of wild life are valuable and important to all of us. Such learning should not be left to chance. Sleeping outdoors, tramping through the woods, preparing meals in the open, boating, swimming, getting acquainted with birds and the wild creatures are adventurous experiences; but they are also necessary and desirable phases of "growing up."

Schools, as I see it, cannot avoid responsibility in such matters. My experience teaches me that parents welcome this type of teaching and readily agree as to its necessity and values.

There are also many who believe that the outdoors provides the best setting for teaching spiritual values. It certainly is true that a person gains a sense of values and of understanding in the outdoors which makes him a better person. For most people, I am sure, life in the outdoors brings out their best. Also, where can an understanding of art and music be secured better than in the great outdoors?

These things, I believe. I know many others believe them also. I would that all of us associated with schools think more on these things and do more to develop going programs. I am sure that the results in terms of better living will be eminently worth-while.



Lincoln Elementary School, Lewistown, Montana

Cushing and Terrell, Architects and Engineers

Luminous-Indirect Lighting Was Chosen for the Seven Classrooms in this New Montana School

LUMINAIRES ARE *Wakefield* INCANDESCENT COMMODORES WITH LUMINOUS PLASTIC REFLECTORS



The Commadore has a translucent Plaskon reflector which conceals the lamp and has about the same brightness as the ceiling above. No noticeable glare direct from luminaire itself or reflected from desk or task is present. Since the ceiling becomes the apparent principal light source, a light distribution occurs which provides soft modeling shadows to facilitate three-dimensional seeing.

Superintendent of Schools D. W. Githens and Architects Cushing and Terrell were guided by the most modern concepts of decoration and lighting when they planned and designed the classrooms in this new elementary school. Result: a comfortable visual environment for children to work and grown in.

Each of the seven rooms was painted in a different pastel shade having a high reflectance value. Chalk boards are light green. Ceilings are white. Desks and furniture are light in color. And the artificial lighting is

provided by luminous indirect luminaires (Wakefield incandescent Commadores) which reflect most of the light from the ceiling in a distribution pattern markedly free from glare, shadows and sharp brightness contrasts.

Why luminous-indirect lighting equipment is fast becoming recognized as an essential ingredient of the ideal classroom environment is covered comprehensively in our booklet "Supplementary Lighting for the Co-ordinated Classroom". For a copy write to The F. W. Wakefield Brass Company, Vermilion, Ohio.

Wakefield Over-ALL Lighting

BASIC FOR CO-ORDINATED CLASSROOMS



THE COMMODORE



THE STAR



THE WAKEFIELD CEILING



Keynotes

Arthur B. Moehlman

"ART" MOEHLMAN is dead. He left the world, and particularly his profession, better because he lived and worked and helped others to think and do. Art had both courage and conviction—rare qualities in most men. Strong in his convictions, he had ability more than most of us to present what he believed vividly and with discernment. He was a great teacher, a good research man and an able journalist. He was active in professional circles and gave unselfishly of his talents to others. His writings in educational administration are among the best, and his books are used in many graduate schools.

For a number of years, Art was editor of *The Nation's Schools*. He gave to that publication prestige and scholarly standing. His editorials carried a punch, and caused his readers to stop and think even when they didn't agree. He set high standards for his journal, and helped to raise the level of educational journalism.

I was privileged to know Art Moehlman well, both personally and professionally, and in many different roles. I am convinced that he contributed mightily to better schools in America. He set a pace and made a record which others who come after him will find it difficult to match. America and its schools, particularly, are better because Art Moehlman lived.

WALTER D. COCKING

Julian Butterworth Retires

ON A DELIGHTFUL DAY in late May, many of the friends and former students of Julian Butterworth gathered at Cornell University by the beautiful shores of Lake Cayuga to honor him and Mrs. Butterworth. Dr. Butterworth completed, in June, thirty-three years of service at Cornell. He is now retiring from his professorship. Julian can look back with satisfaction on the achievements made in those years. They were rich in living, bountiful in service rendered, outstanding in leadership provided. Here and there, in every section of America, can be found his former students manfully striving to carry out in their communities the lessons he taught with untiring energy. Education, as a whole, and rural education, in particular, is taking great strides ahead because of the work of this man.

THE SCHOOL EXECUTIVE joins with Dr. and Mrs. Butterworth's legion of friends to thank them for



N. L. Engelhardt



William G. Carr

what they have contributed to better education and to wish them many more years of good and fruitful living.

Well Done, Dr. Conant


RARELY HAS THE CASE for the public secondary schools been presented so ably as Harvard's president, James B. Conant, did it in an address before the regional meeting of The American Association of School Administrators at its recent meeting in Boston. The question is not whether you agree or disagree with Dr. Conant. He probably doesn't care too much. The real question his discussion poses is what is the function and place of public secondary education in our democracy. We need to set our thinking straight. We need to deliberate carefully what public education can and does contribute to making our way of life succeed. In such a discussion there is no place for prejudice or emotional thinking. The hard facts are needed.

The Arrival of James Marshall

THERE IS A CURIOUS paradox in the departure of James Marshall from the New York City Board of Education. For seventeen years the man had been plugging for better public education. His constructive influence ranged over an encyclopedic list of educational activities. The public took it for granted and there it was.

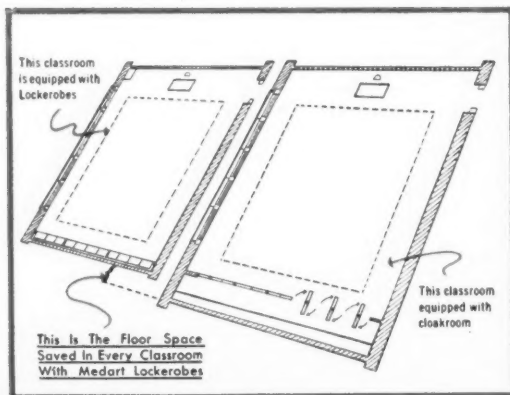
Suddenly, there was an awareness of the impending expiration of Mr. Marshall's term as a member of the board. Although it had been a mathematical certainty that anyone could have learned at any time, the approach of the inevitable day aroused a good part of the city. In his departure from the board, it may well be said that Mr. Marshall finally arrived.

New York's Mayor passed by Mr. Marshall to appoint someone else to the vacancy. The *New York Times* was moved to comment editorially, "... Mayor Impellitteri did himself and the city no good yesterday." And the *New York Herald-Tribune* made it unanimous



MEDART LOCKEROBES

... for elementary schools



Compare the floor plans at the left... and multiply this saving of space by the number of classrooms in the typical elementary school. Consider the reduced cubic content of each room, and the tremendous saving in building costs made possible by Medart Lockerobes!

But economy in construction isn't all. Because Lockerobes are installed in 16" unfinished recesses, great areas of plaster, tile or glazed brick are eliminated. No overhead framing is required. And finished flooring, necessary in ordinary cloakrooms, can be forgotten. Add to this the saving in maintenance, for Lockerobes are built of steel which requires no upkeep.

Another exclusive feature of Lockerobes is Medart's "Simultaneous-Opening, Master Door Control" by which the teacher alone opens and closes all the doors, by the simple operation of the Master Door Control. There is no disorder, noise or confusion, but neatness, quiet, safety and order.

Lockerobes are vermin-proof, fire-proof and sanitary. There is ample provision for unrestricted air circulation. And extra sturdy, reinforced construction keeps Lockerobes like new for years.

Non-recessed Free-Standing Lockerobes, for installation against the wall, on steel or built-in bases, also offer space-saving advantages over old-fashioned cloakrooms, plus all the other features of recessed Lockerobes.



SIMULTANEOUS-OPENING, MASTER DOOR CONTROL

- Open this door and all the right-hand doors open.
- Open this door and all the left-hand doors open.

FRED MEDART PRODUCTS, INC. 3534 DE KALB STREET
ST. LOUIS 18, MISSOURI

World's Only Complete Single Source For Gymnasium Equipment

Telescopic
Gym Seats

Lockers & Wire
Basket Shelving

Lockerobes
& Grade-Robes

Basketball
Backstops

Physical Fitness
Apparatus

Basketball & Football
Scoreboards

Physical Therapy
Equipment

Write For Catalog
that describes both Lockerobes
and Medart Grade-Robes



with the observation that the Mayor had "performed a sharp disservice to children, teachers, parents and the whole community," by ignoring Mr. Marshall's long and tested service to New York.

Now, there is a lot more to this incident than meets the eye. It is vital to educators, everywhere, as it is, indeed, to citizens, teachers and the children.

Mrs. Franklin Delano Roosevelt sensed the implications of the Marshall incident when, on behalf of the Public Education Association, she bestowed a medal of honor for high service to Mr. Marshall at a dinner at the Waldorf Astoria. Mrs. Roosevelt observed that Mr. Marshall's service had established a standard, had set a pattern. He gave the community a yardstick by which to measure the opportunity for genuine service to the community in education.

An amplification of Mrs. Roosevelt's thought would seem to reveal the significance of the sudden public acknowledgment of Mr. Marshall's long record of continuous work as a board member and a fighter for advancement of educational standards. By the nature of things in New York City and elsewhere, board of education appointments are tinged with politics. Rarely does the competent, independent man appear on the scene. Rarely does the man of high integrity remain in office. You often may not agree with him, but you will always agree it is far better to have him there than many of his contemporaries. When Mr. Marshall had gone the City of New York realized it had failed to hold onto the rare man in public education.

Much the same condition exists even in communities where boards are elected. We do not hold onto the good men eagerly and energetically enough. We know how good they are only when they step down. And then we lament.

It is always presumptuous and generally hazardous to predict what history books will record. One may chance it occasionally: James Marshall's departure from the New York City Board of Education will stimulate earnest believers in the best for American education, far beyond the limits of that city, to encourage the Marshalls everywhere to assume responsibility for leadership and to keep at it.

M. G. P.

The Kellogg 'Cooperative' Projects

THERE IS ONLY ONE thing sadder than to visit a school system, a state department of education, or an institution of higher learning which is hobbled by a bumbling or an autocratic administration — and that is to have to be a student or to teach in such a situation. Anyone who has visited many schools or educational institutions must have been greatly impressed and distressed by the all too numerous evidences of administrative ineptitude, on the one hand, and of almost insurmountable external obstacles, on the other. There can be no doubt about the urgent need for improving administration and eliminating the many legal and traditional factors that handicap administration throughout the country.

It is fortunate for education, therefore, that one of the large foundations should have become sufficiently interested in the problems of improving educational administration to make available substantial funds to aid in their solution. Not only educators but parents who have children in the schools and taxpayers who are supporting the schools throughout the country should be most grateful to the Kellogg Foundation for its insight into this situation and its desire to aid financially in assuring progress. They should also be grateful to the American Association of School Administrators for its interest and cooperation in helping to develop plans designed to encourage a more fundamental approach to a solution of the basic problems.

It is already apparent that progress is being made as a result of these developments and that many significant improvements may be expected during coming years. Unfortunately it is likewise apparent that some rather serious difficulties have arisen. Perhaps the most fundamental problem arose from the manner in which the projects were established.

The grants were made to one institution in each area or region to serve as a "center" on the basis of applications submitted to and approved by the Foundation. This procedure was logical and perhaps necessary. However, each such institution developed its own plans for a "cooperative" project, designed to involve other appropriate institutions and organizations in the area. This procedure was the seat of the difficulty—the basis for a mistake that brought about almost insurmountable difficulties in a number of areas.

Cooperation fundamentally is not a matter of persuading others to go along with a plan which one person or one institution has developed. It does not come because funds are available for the advantage of those who "cooperate." It is not purchasable. Such an approach tends to subvert and prostitute the very idea of cooperation. In this case it resulted in reservations and suspicions which often took months to overcome.

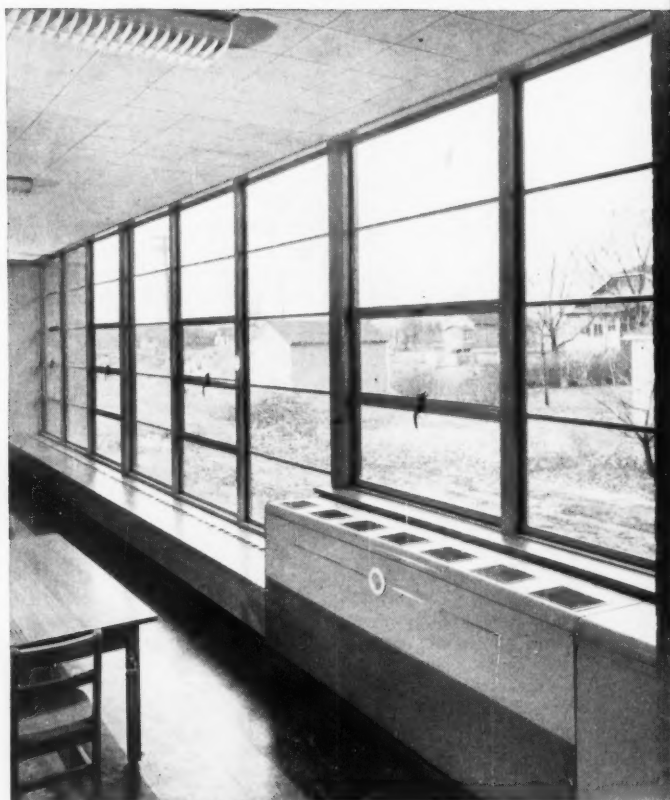
Bona fide cooperation must always begin at the grass roots. Those who should participate should be in a position to help develop plans. To the extent that individuals and organizations have a part in developing programs which they consider to be sound, they are likely to believe in those programs and to support them wholeheartedly. Under such conditions cooperation becomes a natural process. There are no artificially imposed reservations or suspicions to be overcome.

Fortunately, the inherent desire of educators to find ways and means of cooperating to improve the educational program has resulted in overcoming many of the original difficulties in most of the areas where projects have been established with the aid of Kellogg funds. Many genuinely cooperative approaches to a solution to some of the major problems have been evolved and prospects for continued progress are most encouraging. However, in looking to the future, educators and organizations concerned with education should, on the basis of this experience, appreciate more than ever before the value of bona fide cooperative projects and take extra precautions to see that they are developed on a genuinely cooperative basis from the beginning.

E.L.M.



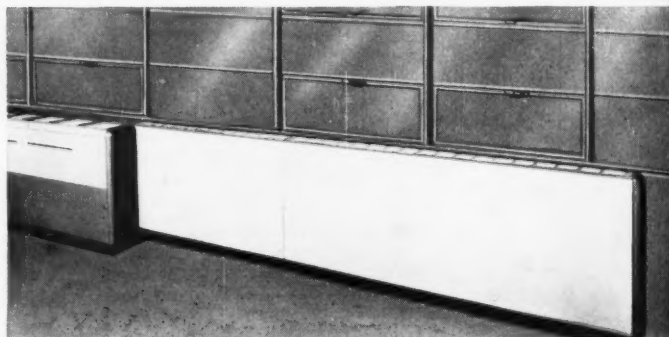
"I could tell you



The modern classroom, above, incorporates an architect's application of DRAFT[STOP when utility cabinets are not required. The adapter grille (a Herman Nelson accessory) has been installed in a wooden window seat to protect against downdrafts from the large window area. The DRAFT[STOP Unit Ventilator is placed in one end of the room and a filler piece completes this unique but practical installation at Home School, Stickney, Illinois. All of the rooms are heated, cooled and ventilated with this up-to-date installation.



Bonne Terre Elementary School; Bonne Terre, Missouri, gives school children deep in the "heart of the Ozark's" a most modern building in which to carry on the learning process. The important physical factors of heating, cooling and ventilating are controlled automatically by the Herman Nelson DRAFT[STOP System. Superintendent of Schools, H. M. Terry; Consulting Engineer, N. Russell Maloney.



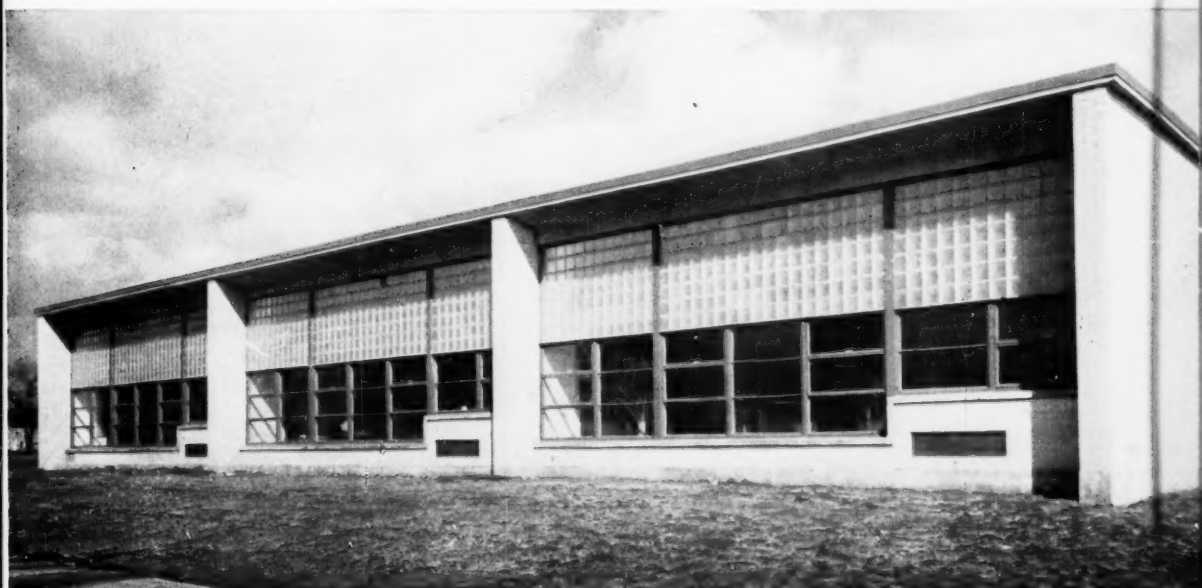
Now DRAFT[STOP Wall available—DRAFT[STOP Wall is now available as an accessory where advantages of the Herman Nelson DRAFT[STOP System are desired but where utility cabinets or cavity wall construction are not required. DRAFT[STOP Wall can be used with either 32" or 28" high standard or recessed DRAFT[STOP Unit Ventilators. Write for descriptive folder today.

a lot about schoolrooms..."

A S A TEACHER I have quite naturally given a lot of thought to schoolrooms. Some of them are attractive, well lighted, airy and comfortable—happy rooms. Others are, well—just unpleasant.

I've noticed that the schoolroom has a big effect on the pupils. Put them in a stuffy, overheated or badly ventilated room and the children are dull—learn slowly. On the other hand, if the room is intelligently planned, it has provision to heat, ventilate and cool according to the needs of the children. Then you'll find that the children do better work and lose less time because of illness.

The climate in my schoolroom is "manufactured" by our Herman Nelson DRAFT|STOP installation. This system heats, cools and ventilates *automatically*. I never touch the controls. They call this system DRAFT|STOP because it prevents the drafts from our large window areas from pouring into the room. I feel that this DRAFT|STOP System provides ideal conditions that help my students learn more—stay healthier. If you are planning a new schoolhouse or the modernization of an old one, it's a good idea to get in touch with Herman Nelson. Write Dept. SE-7, Herman Nelson Division, American Air Filter Company, Inc., Moline, Illinois.



Home School; Stickney, Illinois, is a unique illustration of the use of the DRAFT|STOP System of Unit Ventilation. Unit Ventilators as the intake grilles in the exterior above show, are placed at one end of the classroom as against ordinary practice of centering them on the window wall. After several months of occupancy during the past

school year adequately tested this application, results have proved entirely satisfactory—cooling, heating and ventilating, all working in perfect harmony to assure ideal air conditions. Superintendent of Schools, E. D. Aurand; Architect, Louis Balluff.



See the 16mm full color movie "Design for Learning"—Herman Nelson's new 25-minute full color film on modern school planning will prove most helpful in your building plans. Your local Herman Nelson Sales Representative will be glad to schedule a showing of this film.

DRAFT STOP

HERMAN NELSON

SYSTEM OF CLASSROOM
VENTILATION

STILL AS ALWAYS...THE **First Choice** OF PUBLIC AND PAROCHIAL SCHOOLS

America's *Safest* way to go to school !



Free

No advertisement can give you all the facts you want and need. Get complete details. Write for our new full-color booklet. Address Building S . . .

WAYNE WORKS, INC. • RICHMOND, IND. • U. S. A.

Free

Big, bright-colored Safety Posters (27" x 21") for classroom instruction in school bus safety. Write: Department of Safety Research, Room SE . . .

WAYNE WORKS, INC. • RICHMOND, INDIANA • U. S. A.
World's Largest and Oldest Manufacturer of Bus Bodies Exclusively!

Every day, more of your students "graduate" to IBM's...

WHY NOT TEACH* THEM ON IBM's

**Tests prove they learn faster and become more proficient typists on IBM's, too.*



First Bancredit Corp., St. Paul, Minn.—one of thousands of organizations now using IBM Electric Typewriters.



Electric Typewriters

INTERNATIONAL BUSINESS MACHINES



Send for free Teaching Aids

THE SCHOOL EXECUTIVE for JULY, 1952

IBM, Dept. SE-8
590 Madison Ave., New York 22, N. Y.

☐ Please send booklet "Electric Typewriters in Education," and complete educational kit.

☐ We'd like to see your full-color sound movie, "Electric Typing Time" on _____ (date)

Name _____

School _____

Address _____

City _____ State _____

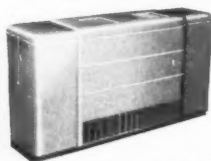


To help children learn...

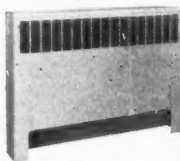
TRANE unit ventilators furnish healthful, temperate air

TRANE Unit Ventilators bring in plenty of outside air . . . filter it . . . warm it to the precise temperature required . . . circulate it freely and evenly throughout the room. They operate quietly, are sturdily constructed, and may be adjusted to the activity of each individual room. TRANE Unit Ventilators may be

efficiently supplemented by TRANE Convectors which cleanly, gently and quietly distribute heated air. These are but two of many TRANE products for heating, ventilating and conditioning the air in schools. Contact any TRANE sales office for complete data, or write The TRANE Company, La Crosse, Wisconsin.



TRANE Unit Ventilator filters and combines outside and room air, heats and distributes it quietly. Available in a range of sizes and models . . . also with matched shelving.



TRANE Convector is quiet, compact, clean. Available in recessed, semi-recessed, or free-standing models. Flat or sloping tops. Convectors may be furnished in special models to fit Unit Ventilator Shelving.

MANUFACTURING ENGINEERS OF HEATING, VENTILATING AND
AIR CONDITIONING EQUIPMENT FOR SCHOOLS

TRANE

THE TRANE COMPANY, LA CROSSE, WIS.
Eastern Mfg. Division, Scranton, Pa.
Trane Company of Canada, Ltd., Toronto
Offices in 80 U.S. and 14 Canadian Cities

Enrich your music program

with RCA VICTOR records



1 RCA VICTOR RECORD LIBRARY for ELEMENTARY SCHOOLS

A basic record library for the classroom. Consists of 21 albums, 83 records, 370 compositions, recorded on 45 rpm as well as 78 rpm records. All albums available separately. Teaching notes in each album provide suggestions for use of each composition. *Mail coupon for list of compositions.*



2 RCA VICTOR ALBUMS for Books of "A Singing School"

Ten albums, of RCA Victor Records, available separately, recorded by Robert Shaw personnel from material in song books of "A Singing School," published by C. C. Birchard and Company, Boston, Mass.

The albums are available on 45 rpm records as well as conventional 78 rpm. Complete series covers Grades 1 through 8, and two combination albums. *Mail coupon for complete list of songs.*



3 FOLK DANCE RECORDS by RCA VICTOR

This new series comprises sixteen records, available singly, and includes thirty-six different folk dances and exercises. Squares and reels, polkas, flings and schottisches, gay festival programs of America, Norway, Sweden, Denmark, England, Germany—and other countries. Records available at 45 rpm and 78 rpm speeds. *Send for complete information.*



4 RCA VICTOR RECORD ALBUM INSTRUMENTS of the ORCHESTRA

Provides students of music with aural recognition of the individual instruments of the orchestra. Each instrument is heard solo, with piano accompaniment played by Sir Malcolm Sargent. Available on 78 rpm records only. *Mail coupon for illustrated literature.*

5 RCA VICTOR MODEL 45EY4 Complete Automatic Phonograph

Just the phonograph for the classroom. Plays up to 14 of the 45 rpm records at the flip of a switch. Features the "Golden Throat" tone system, a separate tone control and an extra-large speaker (8-inch) for excellent sound reproduction. Smart-looking and compact cabinet. *Mail coupon for complete specifications.*



MAIL COUPON NOW for Complete Information

EDUCATIONAL SERVICES

RCA VICTOR



DIVISION OF RADIO CORPORATION OF AMERICA, CAMDEN, N. J.

EDUCATIONAL SERVICES, Dept. 109G
Radio Corporation of America
Camden, N. J.

Please send me information on the items indicated by circled numbers below:

1 2 3 4 5

Name _____

School _____

Street _____

City _____ State _____

CONFERENCE CALENDAR

JULY

30-July 5, National Education Association, Detroit.

7-18, Classroom Teachers National Conference, NEA Department of Classroom Teachers, Michigan State Normal College, Ypsilanti, Michigan.

7-18, Summer Conference on Elementary Education, Department of Elementary School Principals,

NEA, University of Michigan, Ann Arbor.

AUGUST

25, Convention, National Audio-Visual Association, Hotel Sherman, Chicago.

4-8, Audio-Visual Education Institute, University of Wisconsin, Madison.

6-7, Annual meeting, National

Council of Geography Teachers, Washington, D. C.

10-11, Midwest School Building Planning Conference, School of Education, Indiana University, Bloomington, Indiana.

18-22, National Commission on Safety Education Conference, Indiana University, Bloomington, Ill.

21-28, National Council of Teachers of Mathematics, Phillips Exeter Academy, Exeter, N. H.

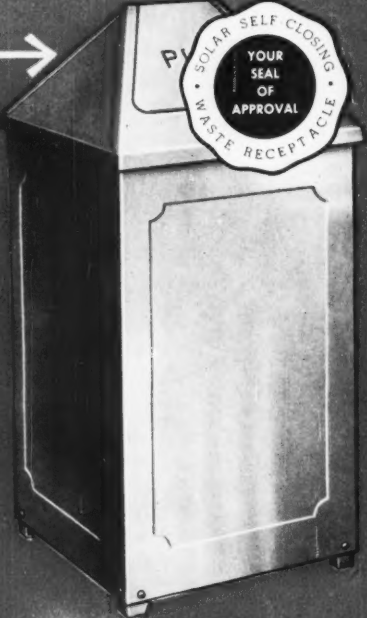
24-30, National Conference of Professors of Educational Administration, Pennsylvania State College, State College, Penna.

SE.39

Engineered
for School
Safety
and Efficiency

SOLAR

the original
SELF-CLOSING
RECEPTACLE




For over a quarter century of constant research and improvement on our line of waste receptacles, we have incorporated your ideas into today's most properly constructed unit—the SOLAR—the original Self-Closing Receptacle.

In this waste receptacle, therefore, you find equipment adequate in every way to solve your sanitary problems, reduce accidents, cut cleaning costs and plumbing expense.

Whether it is out of doors or indoors, your presence will be safer, cleaner, safer with SOLAR.

Join the legion of users who have given their seal of approval to SOLAR. For further information merely fill out the coupon below and mail today.



Solar-Sturges Mfg. Div.,
Pressed Steel Co. Company, Inc.,
Melrose Park, Illinois

Gentlemen: ☐ Send me additional information and specifications.
☐ Send me name of nearest Solar distributor.

Name _____
Firm or Institution _____
Street _____
City _____ State _____

SEPTEMBER

8-12, Illuminating Engineering Society, National Technical Conference, Chicago.

10-12, Thirty-Eighth Annual Conference of the Governmental Research Association, Shawnee Inn, Shawnee-on- Delaware, Pennsylvania.

17-19, Seventh National Conference on Citizenship, Washington, D. C.

OCTOBER

12-15, National Conference of County and Rural Area Superintendents, New York City.

12-16, Association of School Business Officials of the United States and Canada, Atlantic City, N. J.

20-23, Adult Education Association of the United States, NEA, East Lansing, Michigan.

20-24, National Safety Congress and Exposition, Chicago.

NOVEMBER

27-29, National Council for Social Studies, Dallas, Texas.

27-29, National Council of Teachers of English, Boston.

DECEMBER

27-29, National Council for Teachers of Mathematics, Stillwater, Oklahoma.

28-30, Annual meeting, National Business Teachers Association, Chicago.

OUR SCHOOLS



No. 92. Published to provide basic materials on education to boards of education, officers of parent-teachers associations, civic clubs, and other interested citizens. Reprints in quantities of ten or more may be purchased from The School Executive, 470 Fourth Avenue, New York 16, N. Y.

Next Month: What Is Outdoor Education?

Community Recreation Programs And Their Relation to Schools

What is the
community recreation
picture today?

Why do cities
need planned
recreation?

The need
is both urban
and rural

SCHOOLS should stick to their own business. They aren't even doing a good enough job of teaching the three R's. I can't see why we should give them more money just so some people can learn to folk-dance."

This expression of one citizen's opinion at an annual board of education budget hearing points up an unresolved problem. While the need for recreational opportunities is universally recognized, their extent and who should provide them are unsettled issues.

The National Recreation Association in its "Recreation and Park Yearbook, 1950," provides us with the following facts about recreation facilities in the United States today. Not only are there supervised summer playgrounds in the major cities and in most of the smaller ones, but approximately 4000 of them are open under supervision the year around.

About 3,000 buildings of varying sizes are reported used primarily for recreation. In addition, supervised community recreation programs are using some 5,500 school buildings.

More than 640,000 acres of public parks are reported. Including those in the parks, 36 different categories of facilities are available to the citizenry at public expense.

Five-sixths of the free and semi-free recreational services are provided by the agencies of government: recreation departments, park departments and schools. Commercial enterprise continues, however, as a major factor in the recreation picture.

The question may be asked, "Why do we need community programs of recreation anyway?" Those who have answered this query point out that we have become increasingly an urban, industrial nation. Many people have moved away from the natural out-of-doors opportunities for enjoying spare hours. Others have seen real estate developments take away their rural freedom. Even long-time, big-city residents have seen the neighborhood ball diamond on the vacant lot replaced by an apartment or office building. The expansion of our labor force by an influx of married women has paradoxically increased the need for supervision of children and youth; while shorter work weeks have given workers more time for leisure.

The presence of nearly 500,000 patients in institutions for the mentally ill and of 165,000 in our state and federal prisons and reformatories is evidence of the special leisure-time needs of a large segment of our population. A nation-wide ten per cent increase in recorded juvenile delinquency

Prepared by Raymond H. Ostrander, Superintendent of Schools, Mineola, Long Island, N. Y.

OUR SCHOOLS

Which program
is best for
your community?

Coeducational
activities
have value

A physical,
cultural, avo-
cational program

How to start
the ball rolling

The schools
might do it

in 1951 over the preceding year points up the necessity for action.

By no means will recreation programs solve all of these problems. Yet, together with religion and education, recreation has an important role to play.

What does a good community program look like and whom should it serve? First, it should be said emphatically, there is no one single best pattern. Each community, in conformity with its available resources, needs to develop a design to meet its special characteristics. Rare is the city that provides, at public expense, all the features desired; but many provide a large number of them.

An adequate program will provide opportunities for recreation suited to various age groups from tiny tots to golden-agers. Age grouping is favored by some recreation specialists. The similarities of interests and skill development are given as reasons for this method of classification. Others point with alarm to the trend toward separation of the family whether it be for work or for play. They favor the kinds of programs which provide facilities for family group activities. Father-and-son, father-and-daughter, and mother-and-daughter nights are proving popular.

Recreation, even for elementary and secondary school pupils, does not have to be exclusively on a separate sex basis. Some schools are providing time for boys and girls to mix in physical education and recreational activities. Social and folk dancing and noncontact sports like volleyball, tennis, badminton, archery, golf, and rifle practice are suitable for mixed sex participation. Advocates of this type of activity claim that the unnatural barrier between the sexes in the early adolescent years is more easily broken down by frequent, wholesome, intermingling of groups of boys and girls, under competent supervision.

Physical activities have a place in every organized recreation program. They should, however, not dominate it or be restricted to team sports and strenuous competition. On the other hand, the importance of athletics should not be underestimated. Team sports—baseball, softball, basketball, volleyball and all the rest—provide ample chance for the physical activity, the teamwork and the spirited competition which have become so popular.

Dramatics, symphony orchestras, choral groups, adult education courses in arts, crafts and industrial arts are illustrative of the variety of recreational offerings. Good libraries, forums and discussion groups, picnic areas, parks, playgrounds, teenage centers and, more recently, community centers for all ages are terms which suggest breadth in the opportunities for the pleasurable, wholesome use of leisure.

What can the interested citizen do about all of this? First one needs to survey the local situation. What opportunities for wholesome use of leisure are available? Are the ones now in existence utilized by the people most likely to profit by them? If not, why not? What needs exist that are not now being met?

The next step is to adopt a plan of action. Usually the individual citizen will find it advantageous to arouse the interest and enlist the support of an organized existing agency. Where a responsible group has decided additional recreational opportunities are both needed and within the financial capacity of the community, the next decision concerns the agency or agencies that should be asked to meet the needs.

Patterns of organization differ widely. There are, however, three main plans for administering community recreation. One is under the direction of the local board of education. Milwaukee has been cited for the excellence of such a scheme, with the recreation department responsible to the board of education, through the superintendent of schools.

Proponents of school administration argue that modern education is concerned with the total well-being of people and that play activities fit ap-

OUR SCHOOLS

**The parks
might do it**

**Special agencies
might do it**

**Cooperation
of all is key
to success**

**Schools have
special
obligations**

properly into the kind of educational pattern. They point out that the school facilities are usually well suited to a successful leisure-time program for varying ages. Many of the phases of the school program already contribute to the opportunities for physical and emotional release. Physical education, arts, crafts, music and much of the adult education program are in this category.

Advocates of other types of administration argue that schools are still too concerned with the formal aspects of learning to be able to adjust to the newer concepts of the wise use of leisure. They say school authorities have, in effect, pleaded guilty to charges of failing to recognize the full scope of a desirable recreation program by the very frequency of their placing this responsibility in physical education departments. They complain funds are reduced for recreation first whenever school budget cuts are necessary.

Some, noting the wide recreational possibilities of parks, suggest that park departments take over the supervision of all publicly organized and supported leisure-time programs. The traditional, major emphasis of park authorities on construction and maintenance is held by others to be a deterrent to that department's heading up a forward-looking total program.

The recreation professionals tend to favor a special agency in city and town governments. They want a separate department responsible for the use of all available appropriate facilities. Since the opportunities to begin completely new programs seldom exist in any except the smaller communities, the interested laymen must begin with the agencies already existing. Often, the public schools are in a particularly advantageous position to be of great assistance. With the current emphasis on teaching avocational and other leisure-time pursuits to children and youth, schools are in a strategic position in the recreation scene. That one state, alone, boasts of 507 communities which sponsor adult education programs is further evidence that the schools are providing a considerable amount of the leadership even on the adult level. When it is understood that large numbers of the members of the adult classes are "studying" folk dancing, handball, shuffle board, arts and crafts, the full significance of the recreational aspect of "adult education" becomes self-evident.

Regardless of what agencies are charged with the chief responsibilities for community recreation, the schools have certain obligations. First, cooperation with all concerned in developing a community program of recreation is a definite function of any school system which lays a claim to an interest in the emotional, physical, and social growth and well-being of people.

Second, boards of education through their executive officers, the superintendents of schools, should make school facilities available for recreational use. It is granted that some "headaches" will arise, particularly if an agency other than the schools is administering the program. It is not suggested that cooperation is a one-way street. Rather it is urged that school authorities make every effort to work out satisfactory arrangements supported by written agreements, which will permit the multiple use of school facilities needed for wholesome community-wide use of leisure.

Recreation supervisors have a responsibility for the proper care of school buildings and grounds. In some situations, school facilities can be utilized best by school-employed and directed personnel irrespective of the general administrative pattern. Where there are well-equipped libraries in elementary schools, it is a recreational as well as an educational advantage to have those facilities open during summer vacations on a limited basis under the supervision of school librarians.

Making existing facilities available for recreational use is most de-

OUR SCHOOLS

School facilities
should be planned
with community in mind

Education
for wise use
of leisure

The teacher
plays an
important part

The rewards
are great

sirable, but not enough. Boards of education and school administrators should take community recreational needs into account whenever new buildings are to be constructed. With careful planning, usually at little extra cost, provision can be made for multiple evening use of school grounds and buildings. Storage space for adult recreation equipment is a sample of the type of extra space needed.

Third, schools have an obligation to provide the trained leadership for community programs of recreation wherever it is needed and cannot be provided more satisfactorily by another public agency. To insure a coordinated program, this leadership should be on a year-round basis. Care should be exercised in choosing top leadership with sufficient breadth of vision to provide a balanced program.

Where summer day camp or recreation programs do not already exist, education authorities would do well to examine the possibilities of establishing them under school sponsorship.

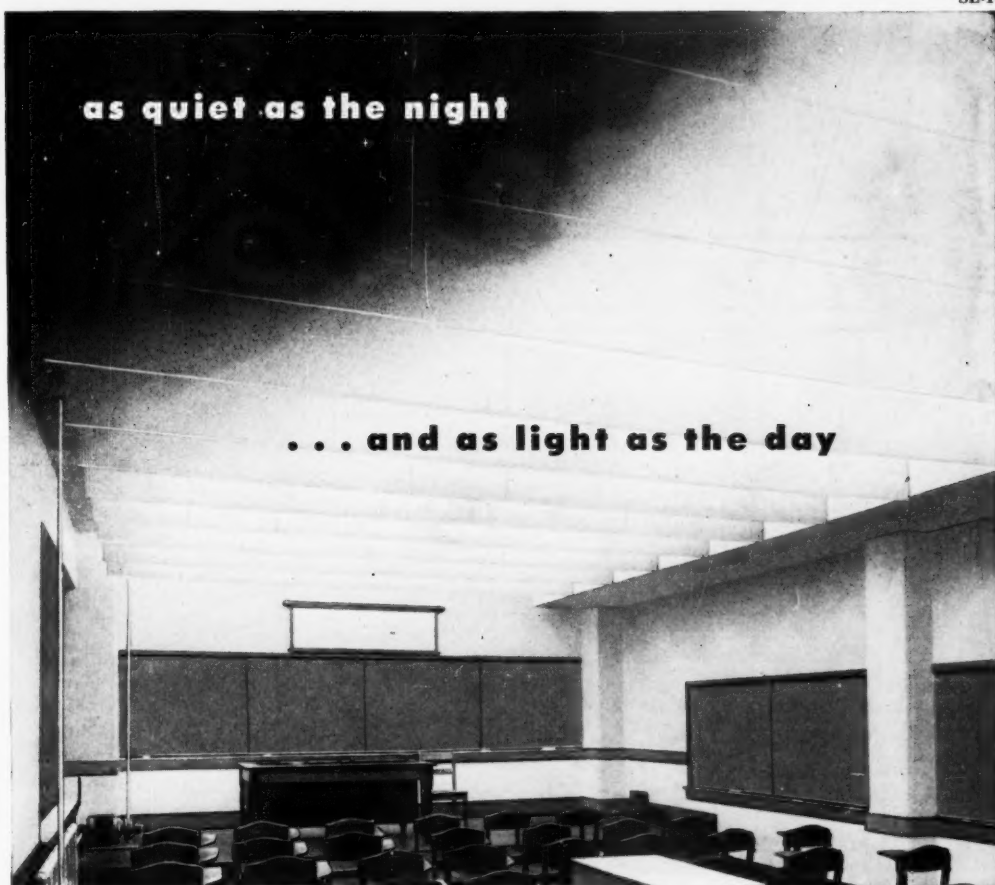
Fourth, schools need to give increased attention to education for the wise use of leisure. Not only should pupils have opportunities for learning the necessary skills for sports which have carry-over value in adult life, but they need to acquire tastes, interests and skills in many other areas suitable for leisure-time pursuits. The example of schools in Michigan, California and other states in providing camping experience for pupils for a week or two during the school year is worth widespread adoption.

Of course, there should be the closest kind of cooperation between the community groups, both public and private, which sponsor golf courses, tennis courts, bowling alleys, skating rinks and the like.

The reading habits attained under the guidance of the English teacher will, in part, determine the adult use of spare time. The teacher who expected all his pupils to attain mastery of the best of the classical literature regardless of the price may have been successful as frequently success in teaching is measured. Still, the teacher who may have been a bit more sympathetic with the less interested may have conducted classes where good reading was a pleasurable and joyful experience which elicited more of the same. They tell us that the importance of a pleasant first contact is beyond measure. Children who have had an unpleasant experience when they began to learn to swim, even though they become good swimmers, seldom learn to enjoy swimming as thoroughly as others. Similarly, pleasure from reading may have been conditioned by early school experiences.

The influence of the teachers of dramatics, music, art, industrial arts, home economics and even of the social studies will be reflected in the selections which former pupils make for the use of their time outside the so-called working hours. It may have been the intense interest in good government encouraged in Miss X's class that is now providing the spark and drive which made the community forum a success last winter. The thrill of making a simple set of book ends in the seventh grade industrial arts class may have started the interest that has led to attendance in adult education wood-working classes and the establishing of a home shop.

A community concerned about the emotional, physical and social well-being of its members will offer a wide variety of opportunities for the enjoyment of hours away from the factory, the office, the kitchen and the classroom. It will encourage individuality and keep all recreation on a strictly voluntary basis. The recreation cafeteria, as it were, will have a storage room well stocked with supplies for differing menus. A choice will be available on the counter but the possible selections will vary from day to day. Each will be invited to select a balanced meal with enough of the staple foods to insure a full diet. The vendor of the food is less important than its quality, quantity and variety. It is according to their individual tastes, developed over the years, that the diners will make their choices.



This New Light and Sound Conditioning System Will Give You the Most Modern Lighting Plus Efficient Acoustical Treatment At Low Cost

The Curtis Light and Sound Conditioning System provides quality, low brightness illumination and eliminates excessive sound reflections. The Lighting System consists of basic, extension, and wing sections which may be combined to accommodate any size school-room, office, auditorium or other interior.

The Sound System consists of vertical panels of high quality acoustical material with a high reflectance, flame retarding, washable finish. The acoustical panels are positioned between 96-inch T-12 fluorescent lamps.

Now you may have both fine lighting and sound conditioning at a low initial cost, low installation cost, low operating and low maintenance cost. Write today for further descriptive information.

CURTIS LIGHTING, INC.

Dept. G27-05, 6135 West 65th Street
Chicago, 38, Illinois

Name

Company

Address

City State

CURTIS

LIGHTING, INC. • Dept. G27-05 • 6135 West 65th Street, Chicago 38, Illinois

PLANNING PAYS

A development program for your institution is much more than an intensive period of fund-raising. Planning *now* can result in achievement ten years hence.

It is important that you move surely rather than quickly.

Your request for our booklet "Planning Pays" will be answered promptly. The booklet describes definite progress in a specific institution.

AMERICAN CITY BUREAU

Fund-Raising

Public Relations

(Incorporated 1913)

221 North LaSalle Street, Chicago 1, Illinois

470 Fourth Avenue, New York 16, N. Y.

*Charter Member
American Association
of Fund-Raising
Counsel*

SKIL Double-Duty Oscillating Sanders Answer Every Training and Maintenance Need

1 Train students with the tool they'll use as professionals.

2 Pay for themselves on maintenance work.



You'll find students more confident—quicker to learn—when you use a SKIL Oscillating Sander in vocational training classes. For these great tools feature ease of handling—faster operation—satin-smooth finishes on all materials, whether wood, metal or composition.

SKIL Oscillating Sanders serve a double purpose. Fine for maintenance work, too, they pay for themselves many times over in refinishing blackboards, desks, chairs, cabinets and other school fittings.

You can always rely on SKIL for faster work, finer workmanship!

• • •

SHOWN AT LEFT—SKIL Oscillating Sander, Model 438—One of the fastest-cutting, portable finishing sanders made. Exclusive compound motion produces the smoothest possible finishes.

Sanding surface: $4\frac{1}{2}$ " x $5\frac{1}{2}$ " ($\frac{1}{2}$ sheet). Ball bearings throughout. Sealed against dust and dirt. Length overall: $7\frac{3}{4}$ ". Net weight: $7\frac{1}{2}$ lbs.

SKIL

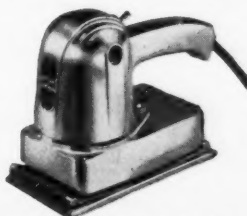
PORTABLE TOOLS

SKIL Products are made only by
SKILSAW, Inc., 5033 Elston Avenue
Chicago 30, Illinois

Factory Branches in 34 Principal Cities
In Canada: Skiltools Ltd., 3601 Dundas Street West,
Toronto 9, Ontario

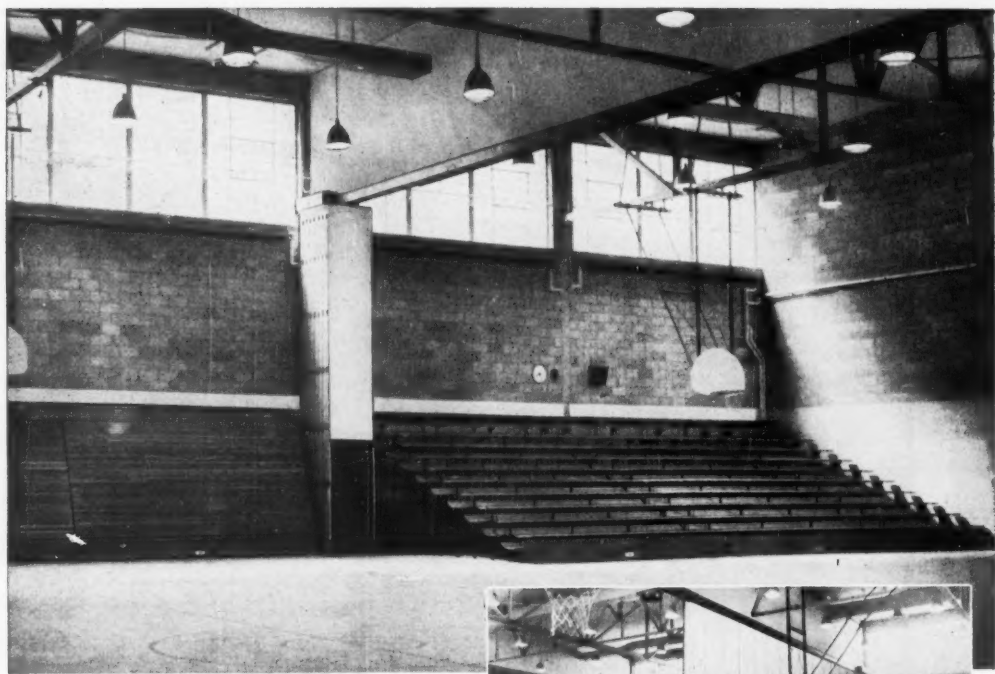
SKIL Home Shop Oscillating Sander—Model 578

Features extreme light weight for easy one-hand operation. Ideal for lighter maintenance requirements. Sanding surface: $3\frac{3}{4}$ " x $7\frac{3}{4}$ " ($\frac{1}{2}$ of standard paper). Sealed ball bearings throughout. Overall length: $8\frac{3}{4}$ ". Net weight: 5 lbs.



FOR COMPLETE INFORMATION, CONTACT YOUR SKIL DISTRIBUTOR, OR WRITE DIRECT

flexible GYMNASIUM PLANNING

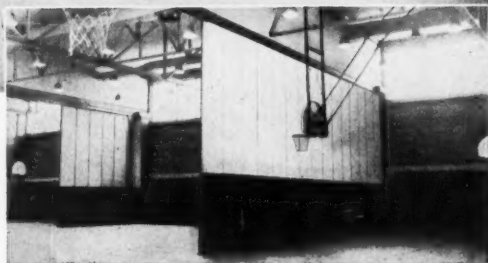


with



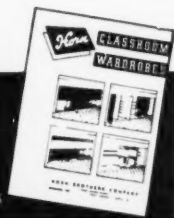
FOLDING GYMSEATS

FOLDING PARTITIONS



HORN, since 1909, manufacturers of HORN FOLDING PARTITIONS AND HORN FOLDING GYMSEATS, offer gym planning designed to utilize valuable gym space. Compact, efficient and engineered for years of trouble free operation, a HORN installation is factory supervised from the start to the finish. From coast to coast HORN FOLDING BLEACHERS AND GYMSEATS are filling the needs of flexible gym planning. Horn Representatives in your locality, can give you a complete appraisal of your requirements. For the finest in gym planning always specify and insist on HORN.

WRITE FOR THE NEW HORN CLASSROOM WARDROBE FOLDER ...



Horn Brothers Company

ESTABLISHED 1909

SCHOOL EQUIPMENT DIVISION

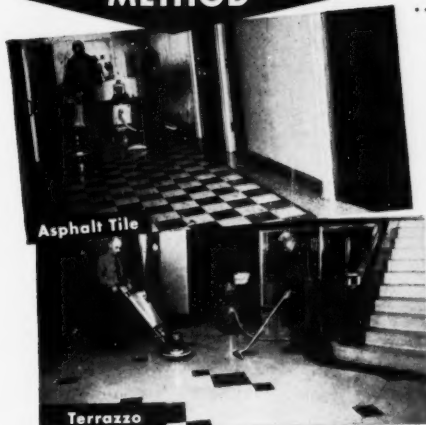
FORT DODGE, IOWA, U. S. A.

MANUFACTURER OF FOLDING PARTITIONS, FOLDING GYM SEATS, FOLDING STAGES, CLASSROOM WARDROBES

THE MULTI-CLEAN METHOD

IT'S DIFFERENT! ... NOW LASTING BEAUTY
... LESS UPKEEP ... FOR ALL YOUR FLOORS

... THIS NEW IDEA IN FLOOR MAINTENANCE IS BEING ACCEPTED
BY MORE AND MORE ENTHUSIASTIC USERS EVERY DAY!

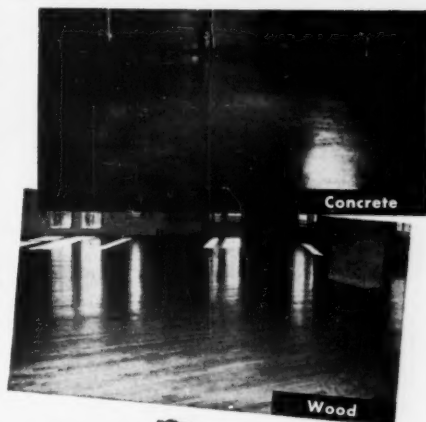


For ASPHALT TILE FLOORS ... From now on you won't have to wax those asphalt tile floors to keep them good-looking and well protected. Multi-Clean Asphalt Tile Preserver is a complete finish in itself ... it provides a long-lasting, glossy finish, and is U/L approved as anti-slip. It ensures continuing beauty and protection for all your asphalt tile. If you prefer to continue waxing your floors, you'll find Asphalt Tile Preserver an excellent base for wax. It makes the wax look nicer and saves you money because less wax is needed. With the *Multi-Clean Method*, ordinary dry sweeping or vacuuming and weekly damp mopping keep asphalt tile clean ... buffing with a Multi-Clean Floor Machine equipped with a polishing brush or steel wool disc will restore the original lustre.

For TERRAZZO FLOORS ... Now your terrazzo floors can have a brilliant lustre yet be extra-safe to walk upon when they are protected by Multi-Clean Terrazzo Sealer ... the terrazzo treatment approved anti-slip by U/L. It penetrates and seals the surface against moisture, dirt and grease. Water-clear in color, it will not yellow with age. It gives your terrazzo a beautiful satiny finish. Floors are ready for traffic within 36 minutes after application. This *Multi-Clean Method* requires only dry sweeping and periodic wet mopping for maintenance.

For CONCRETE FLOORS ... Two types of concrete floor treatments, each formulated to meet your own special floor condition are available to you with the *Multi-Clean Method* of floor care. Both Multi-Clean Neo-Dry Concrete Sealer (rubber-base) and Multi-Clean Concrete Preserver (bakelite-base) provide tough finishes that resist scuffing and wearing, that are not affected by water, grease, oils, or alkalis, and will not peel, chip, or fade with age. They'll give you an excellent base for wax, cut sweeping time and reduce the need for damp mopping.

For WOOD FLOORS ... The speed and ease with which your wood floors are kept in first-class condition with the *Multi-Clean Method* will reduce your maintenance costs. Even under heaviest foot traffic, your floors will retain their safe, glossy finish for longer periods between treatments. Ordinary dry sweeping will keep them clean, and periodic polishing with a Multi-Clean Floor Machine will remove the usual surface dirt and scuff marks, restoring brightness and lustre.



What is the MULTI-CLEAN METHOD?

The MULTI-CLEAN METHOD is a carefully planned and thoroughly tested procedure, developed by men who know floors and floor maintenance, for the most efficient and economical maintenance of floors. The Method specifies the use of proper materials and floor maintenance equipment with the correct applications for all types of floors and floor conditions.



Tested
finishes for
all types of
floors.



All-purpose
floor machine
mechanizes
maintenance.



High performance
wet-dry vac is fast
and efficient.



FREE! GET THIS NEW
FLOOR MAINTENANCE
MANUAL!

Tells how to care for asphalt tile,
concrete, wood, terrazzo, rubber
tile, linoleum — easier floor main-
tenance at lower cost!

**MAIL
COUPON
TODAY!**

Every Multi-Clean Product Carries a 100% Guarantee

MULTI-CLEAN PRODUCTS, INC.

2277 Ford Parkway, Dept. SE-7, St. Paul 1, Minn.

Please send me your FREE Maintenance Manual for all types of floors,
also information on equipment needed.

☐ 9-Job Floor Machine ☐ Wet-Dry Vacuum ☐ All-Purpose Scrubber

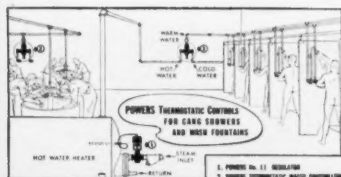
Name _____ Title _____

Address _____

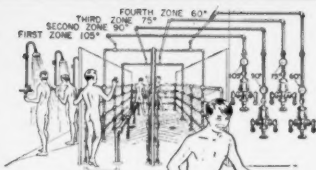
City _____ Zone _____ State _____

9-51

MULTI-CLEAN
PRODUCTS, INC.



OTHER TYPES OF POWERS SHOWER CONTROLS

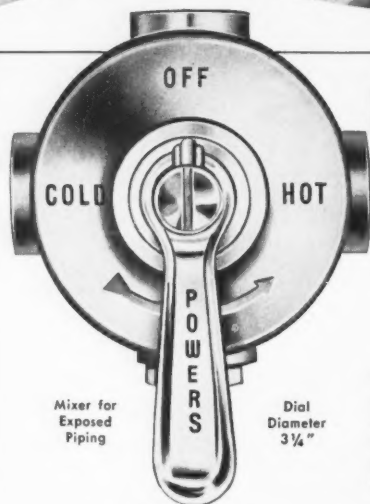


Zone Showers for Swimming Pool

Bathers can really relax and enjoy a Powers regulated shower. No danger of scalding. No unexpected temperature changes.



6" diam. dial.

Mixer for
Exposed
PipingDial
Diameter
3 1/4"

Only One Moving Part

POWERS

Type H

Thermostatic SHOWER MIXERS

are **SAFE** against scalding caused by

① PRESSURE or ② TEMPERATURE

fluctuations in water supply lines

Safer—because of their quick acting response to any change in temperature setting, pressure or temperature variations in water supply lines. Users report control within $\frac{1}{2}^{\circ}\text{F}$. **Greater Comfort**—shower temperature remains constant wherever set. No jumpy temperatures. **More Economical**—POWERS thermostatic mixers promptly deliver showers at the right temperature...no waste of time, hot or cold water.

For new installations or when modernizing obsolete showers... play safe, use Powers type H thermostatic shower mixers. May we send Circular H-48? **SKOKIE, ILL.**, 3400 Oakton St. • **NEW YORK 17, N.Y.**, 231 E. 46th St. **LOS ANGELES 5, CAL.**, 1803 W. Eighth St. • **TORONTO, ONT.**, 195 Spadina Ave.

THE POWERS REGULATOR CO.

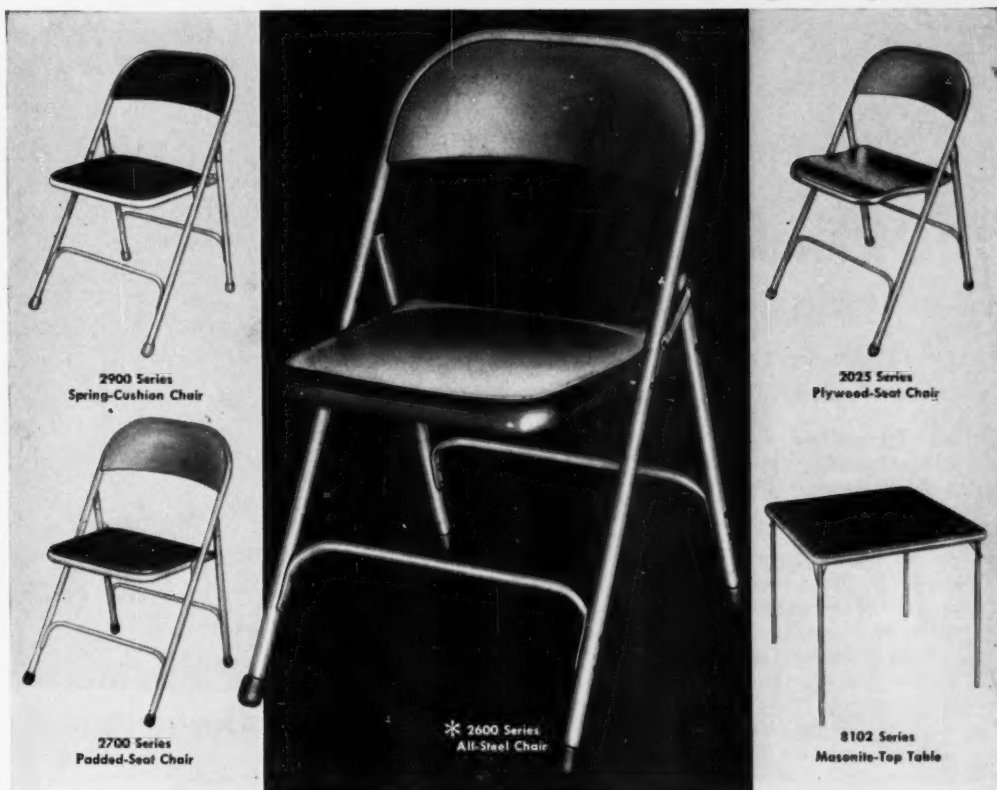
OFFICES IN 50 CITIES • SEE YOUR PHONE BOOK

Over 55 Years of Water Temperature Control

49HM

America's No. 1 Public Seating Buy!

SE-18



2900 Series
Spring-Cushion Chair

2700 Series
Padded-Seal Chair

* 2600 Series
All-Steel Chair

2025 Series
Plywood-Seal Chair

8102 Series
Masonite-Top Table

Samson Folding Chairs

TRY IT FREE— Test America's No. 1 Public Seating Buy Right In Your Own Office!

- Write us on your letterhead, describing your public seating problem. We will send you, express prepaid, for examination right in your own office, the amazing new Samson series 2600 folding chair! No obligation. Special low prices on quantity purchases. Ask your Samson distributor for quotation, or write us direct.

Posture-Designed For Extra Comfort! Steel Construction For Extra Strength! Special Folding Action For Extra Safety!

SAMSON FOLDING CHAIRS are definitely your best public seating buy because they offer you: (1) low cost; (2) long life; (3) real comfort; (4) unsurpassed ease of handling!

weight uniformly distributed, folding mechanism guards against injury, seat rigidly supports framework, back is properly shaped for comfort."

Leading Users Choose Samson:

*Impartial laboratory tests by Pittsburgh Testing Laboratories found the Samson 2600 series chair: "Substantial, well-balanced, easily set up or folded, storing in the most compact space,

United States Navy; Transcontinental World Airlines, Inc.; E. I. DuPont de Nemours & Co.; Denver University Arena; American President Lines; Federal Reserve Bank, Richmond, Virginia; National Broadcasting Co., Inc.; Stix, Baer & Fuller Co., St. Louis, Missouri.

THERE'S A **Samson** FOLDING CHAIR FOR
EVERY PUBLIC SEATING NEED

Shwayder Bros., Inc., Public Seating Div., Dept. G-5, Detroit 29, Michigan
ALSO MAKERS OF FAMOUS SAMSON FOLDAWAY FURNITURE FOR THE HOME AND SMART SAMSONITE LUGGAGE FOR TRAVEL

The TORNADO[®] twins

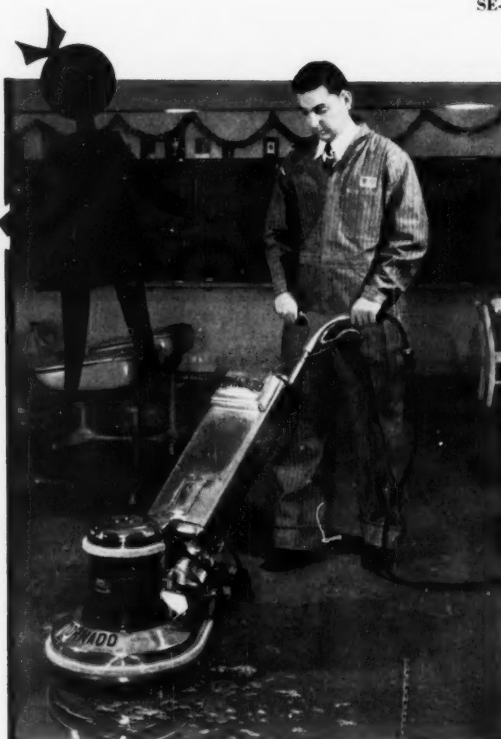
*for faster, more thorough
cleaning of school floors*

With Tornado, floor cleaning can be done in minutes instead of hours. The powerful Tornado floor machine scrubs, strips off wax and loosens all the dirt.

Next comes the Tornado school cleaner to pick up all the dirt, water and scrubbing solution—pulls the water right out of cracks and crevices—leaves the floor bone dry, ready for waxing or immediate use.

You'll be amazed at the ease and speed with which all your floors can be better cleaned—and stay that way. Put the "Tornado Twins" to work in your school for easier cleaning.

We'll gladly send you literature. Just write for Bulletin 607 (floor machines) and Bulletin 600 (school cleaners).



TORNADO FLOOR MACHINE

The easy-to-use floor machine for scrubbing, polishing, sanding, steel wooling, pumicing and scraping. Use it on asphalt or rubber tile, wood, concrete, tile or terrazzo floors.



TORNADO SCHOOL CLEANER 4 cleaning tools in 1

1. As a wet-dry vacuum cleaner.
2. With pac-vac attachments it becomes a shoulder-type vacuum cleaner.
3. Removable blower unit becomes a fast, powerful blower-sweeper.
4. Motor-blower unit serves as a portable dust blower.

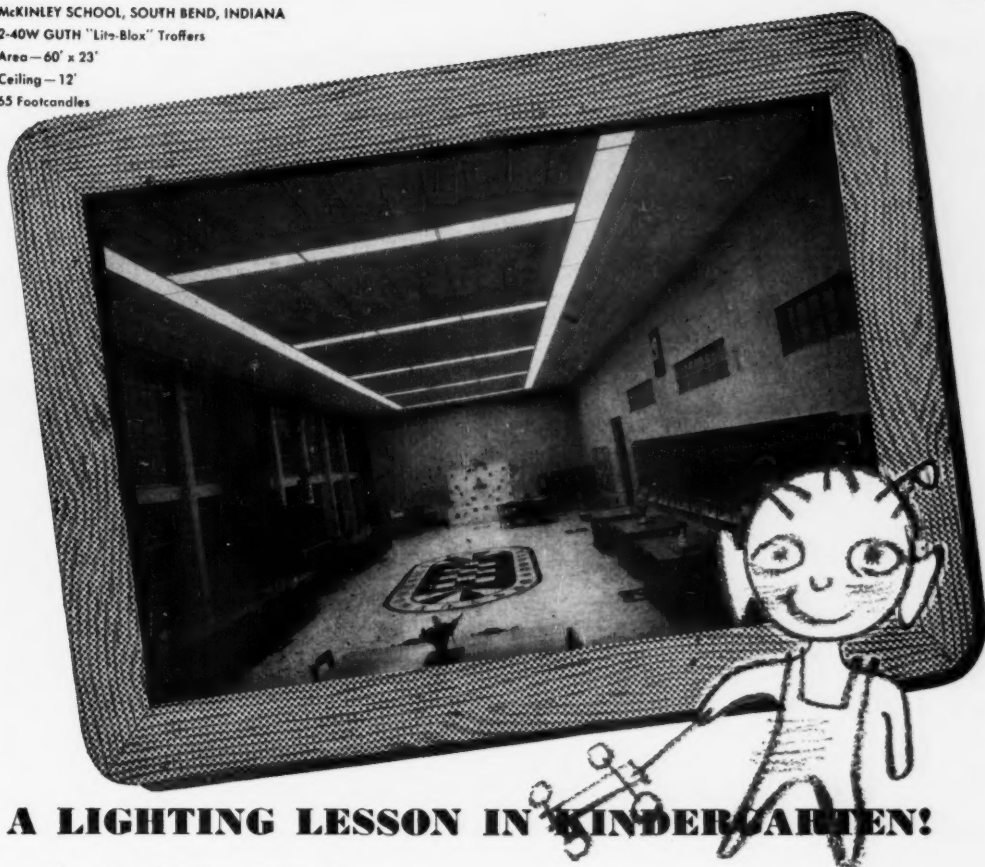


Copyright Breuer Electric Mfg. Co. 1952.

BREUER ELECTRIC MFG. CO

5088 N. Ravenswood Avenue • Chicago 40, Illinois

McKINLEY SCHOOL, SOUTH BEND, INDIANA
 2-40W GUTH "Lite-Box" Troffers
 Area—60' x 23'
 Ceiling—12'
 65 Footcandles



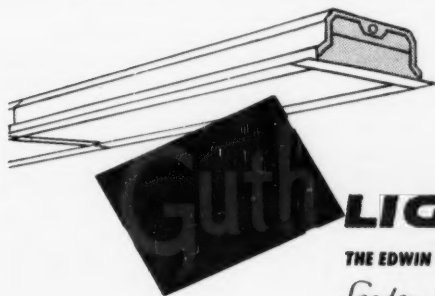
A LIGHTING LESSON IN KINDERGARTEN!

*the "3 R's" of Guth
 precision-planned school lighting:*

Right design

Rugged construction

Reliable performance



LIGHTING

THE EDWIN F. GUTH COMPANY / ST. LOUIS 3, MISSOURI

Leaders in Lighting Since 1902

In classrooms from kindergarten to college, GUTH fixtures are made to solve the toughest lighting problems. They combine the finest illumination for modern education with important economy in purchase, installation and maintenance.

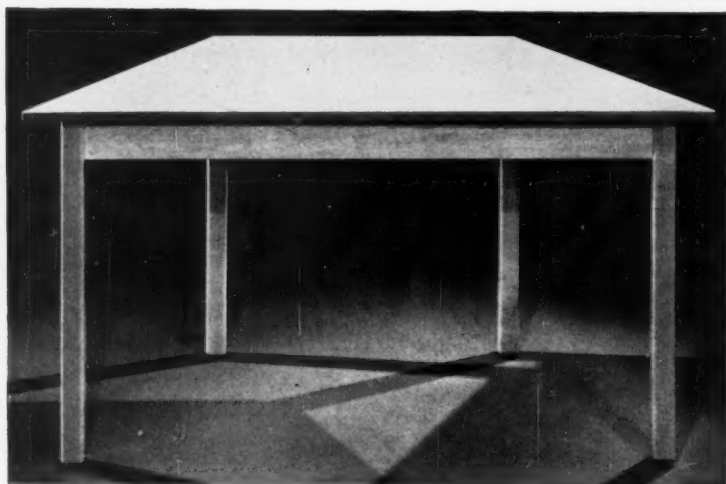
For more information on GUTH Precision-Planned School Lighting, contact your nearest GUTH resident engineer or write for our School Lighting Catalog.

NATIONAL
Line of
MODULAR
SCHOOL
FURNITURE

... *National's New Trapezoidal*

MULTI-MODE TABLE

A Contribution To The Field of Educational Equipment



The National Multi-Mode Table has been developed by one of America's foremost educators as a special educational tool to further group activities on the primary, secondary and college levels.

Experimental models have been exhaustively tested for their functional utility in graduate education seminars at the University of Chicago and custom-built sets have been used at the trailblazing Blythe Park Elementary School, where they have found enthusiastic reception by teachers and students.

The Multi-Mode Table is designed for an infinite variety of group combinations, according to the size of the group and the purpose of the group activity. They can be arranged in a matter of minutes to changing classroom activities.

National presents the Multi-Mode Table—a National exclusive—as a standard educational tool, priced within reach of the average school budget, with these special features:

- NATCOLITE SCHOOL TOP, surfaced with NEVAMAR high-pressure laminate, eliminates maintenance problems.
- All edges banded with WYNENE plastic edge, which won't chip, dent, or mar.
- Genuine wood grain patterns specially developed for uniformly low light reflectivity.
- Choice of two exclusive NATIONAL finishes: Honey Maple, Silver Birch.

NATIONAL SCHOOL FURNITURE COMPANY

Division of National Store Fixture Co., Inc.

● BALTIMORE 23, MARYLAND



Maintenance Superintendent M.R.K. reports—

"we **SAVED 68%** on
man hours with Aluminum Alloy
"UP-RIGHT" SCAFFOLDS

**NEW, FASTER,
SAFER WAY
TO GET UP IN THE
AIR & ROLL WITH
THE JOB**

M. R. K. adds . . . (Name on request)

"Our overhead building and classroom maintenance is accomplished more efficiently and in far less time, thanks to Up-Right's mobility and rapid assembly!"

School officials and maintenance superintendents report that savings on even single installations or maintenance jobs more than pay for UP-RIGHT SCAFFOLDS! Rolled easily from position to position. Stronger than structural steel yet one third the weight. No wrenches, wing nuts, bolts or loose parts.

MOBILE 10 ft. or 6 ft. SPAN UP-RIGHT SCAFFOLD. Bridges obstacles with ease. Instantly adjustable to desired height. Takes only 1 minute to erect.

STAIRWAYS are taken in stride by an Up-Right Scaffold. Legs are instantly adjustable for perfect levelling of platform.

LARGE AREAS can be painted in far less time by bridging between 2 span-scaffolds and moving them simultaneously.

**Write for
Descriptive Circular**

UP-RIGHT SCAFFOLDS

DEPT. 132 • 1013 PARDEE ST. • BERKELEY, CALIF.

FACTORIES: Berkeley, Cal. • Totterboro, N. J.

• OFFICES IN ALL PRINCIPAL CITIES •

**Mobile
TOWER
SCAFFOLDS**

up to 45 ft. or higher take only 1 to 15 minutes to erect. Available in desired number of 6 ft section units.

No. 292

No. 202

No. 1141-1

No. 2142-4

No. 600 Line

No. 4452-6

No. 254

A complete line of exceptionally well-built seating equipment—scientifically designed for correct posture, attractive appearance and ideal adaptability to modern classroom methods, auditoriums. G-E TEXTOLITE surface tops available for all school desks. Priced to make your budget go farther. Write for illustrated catalog.

SEATING COMPANY
IRWIN
GRAND RAPIDS, MICH.

IRWIN SEATING *Company*
GRAND RAPIDS, MICHIGAN

ATF

Good School News

GRAPHIC ARTS—THE EDUCATIONAL FIELD WITH A FUTURE

American Type Founders, Department of Education, 200 Elmora Avenue, Elizabeth, New Jersey

Tucson Senior High School Has Outstanding Success With Graphic Arts Department

Three-fold objective: to provide (1) general educational, (2) avocational, (3) vocational training

The graphic arts department of the Tucson, Arizona, Senior High School was established in 1940 under the direction of Otis H. Chidester with 80 students enrolled.

Today, it has grown to an enrollment of 400-450 students and is housed in a new \$1,500,000 vocational building, modern in every respect. Basic layouts for printing areas were done by the ATF Department of Education.

The objectives of the department are three-fold: (1) general educational, (2) avocational, (3) vocational. All students must take beginning graphic arts before electing either advanced printing or photography, or a combination of the two courses.

During the first year they take home such projects as name cards, personal stationery, book plates, imprinted napkins, personalized memo pads, albums, photograph film and prints. During this year they also explore as many of the related graphic arts fields as possible.

In the second year, the students work on live jobs such as school programs, tickets, posters, awards, school forms, literary publications, publicity. In this way they are trained to meet deadlines, work under industrial conditions, and produce the finished products to pass standards set up by a consuming public. It is also felt that the fact that the students have quality printing for their school affairs and school business is creating an intelligent buying public for the printing industry.

From the advanced courses, capable students are recommended to the printing trade. Thus, the school maintains a wholesome relationship with employers and unions and is able to place all students recommended, either in the southwest, or even in midwestern and eastern areas. Many students in the last two years of school are employed locally after school and holidays. Unions and employers are recognizing the ability of students from this department by up-grading them from one to three years during apprenticeship.



Beginning graphic arts shop at Tucson Senior High School

The Tucson graphic arts shop is divided into beginning lecture room, graphic arts laboratory, photographic lecture and work area, darkroom with contact printing and enlarging work area and two film handling rooms, advanced lecture room, vocational printshop, advanced photographic lecture and work area, darkroom with enlarging work area, four film handling rooms, portrait room, central stockroom.



Composing room of advanced graphic arts shop



Advanced graphic arts shop at Tucson

Graphic Arts Courses in All New York City Junior High Schools

Graphic arts departments have proved highly successful in the 53 junior high schools throughout the five boroughs of New York City.

According to Robert Cynar, industrial arts supervisor, the principal purpose of these courses is to familiarize students with the processes by which written words become printed pages and the processes by which a drawing becomes a print.

The aim of these non-vocational schools is to teach basic skills, and, more important, to stimulate students' interest in academic subjects through this medium.

ATF has Specialized Department of Education Engineering Service

ATF maintains specialized services for vocational and industrial arts schools. Our Department of Education's engineering service is available to you.

Call on ATF today. Write for your copy of our booklet, *Career Opportunities in the Printing Industry*. Better printing from the widest line of processes—*gravure... letterpress... offset.*



WARDROBEDoor

FOR SCHOOLS

GOES

UP

SAVES SPACE

Building demands being what they are, any space that can be saved is an advantage. Here — illustrated in cross-section at the right — is a wardrobe door specifically designed to *save space*. It is a two-section door, opening *upward* as the drawing indicates. Counterbalancing, synchronizing, and double action provide easy operation up or down. Facing can be chalk board, cork board, or any desired combination. Wardrobes can be minimum depth; and there is no intrusion on aisle space, which can also be minimum — with *substantial* floor-space saving. The Barcol WARDROBEDoor is ideal for remodeling, too. Let your Barber-Colman representative give you full details — look for his name in the Yellow Pages of your telephone directory.



SALES AND SERVICE REPRESENTATIVES IN PRINCIPAL CITIES



BARBER - COLMAN COMPANY
156 MILL STREET • ROCKFORD, ILLINOIS

NEW American

MODEL A. L. M. 13

Floor Maintenance Machine



Big Machine Performance...

13 inch brush spread ...
Riding-on-head construction.

Easy Portability...

Reduced weight.



Efficient...

for scrubbing, polishing,
steel wooling, disc sanding,
buffing, all types of floors.



Economical...

American-built dependability.

It's a beauty any way you look at it! Smart modern styling... new economy and efficiency... easy operation for scrubbing, polishing, steel wooling, disc sanding and buffing all floors... wood, tile, asphalt, concrete, rubber, terrazzo or marble. Ideal for jobs requiring easy portability and reduced weight. G.E. heavy-duty motor. Brush speed 172 r.p.m.

Has removable handle for easy carrying or storing. Handle can be rotated so built-in trailing wire will be on either side of operator desired. Handle automatically adjusts to proper height for tall or short operator. Safety-type bar switch on handle stops machine instantly when operator releases grip. A low tension spring in bar switch eliminates hand fatigue. Attachments can be put on or taken off in seconds—no tools necessary. Built for long life!

*Send
now for
details!*

The American Floor Surfacing Machine Co.
549 So. St. Clair St., Toledo 3, Ohio

Without obligation, send latest catalog on the following:

- ☐ New American A.L.M. 13 Maintenance Machine
- ☐ American DeLux Maintenance Machines
- ☐ Complete Line of American Floor Finishes

Name.....

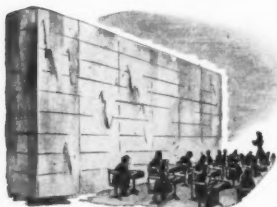
Street.....

City..... State.....





The free-standing Nesbitt Syncretizer Unit Ventilator with Wind-o-line Radiation extending from both ends of it, at the sill line.



To solve your "WALL-OF-ICE" problem... this NESBITT THERMAL BLANKET:

Architects who design and school officials who approve large window areas in the modern classroom may delight in their choice if *thermal comfort* has been considered.

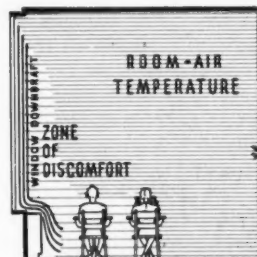
Unit ventilators could be selected by conventional standards if thermal comfort depended alone upon the classroom air temperature. But today we know that low-temperature exposures and cold window downdrafts may remain the robbers of pupil comfort, even in classrooms with close control of room-air temperature. The practical solution to the chilling effect of window downdraft is to release heat upward over the exposure.

For conditions of large glass area and cold outdoor temperature, Nesbitt provides Wind-o-line Radiation for integration with the Syncretizer.

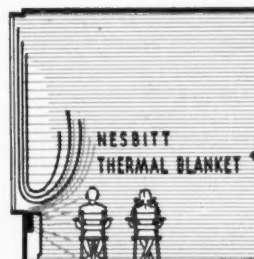
Wind-o-line consists of fin-and-tube radiation in a grilled wall-hung casing to extend from both ends of the ventilating unit for the full window length—and continued, if required, along cold outside walls. (Or it may be had as a component of the storage cabinets forming The Nesbitt Package.)

Wind-o-line solves the problem of heat loss logically with a heat gain where and when needed. Convected currents of warm air temper the window downdraft and divert its flow upward and above the heads of the room occupants.

Inquire further of John J. Nesbitt, Inc., Philadelphia 36, Pa.
or the nearest office of American Blower Corporation.



With room-air temperature evenly maintained, downdraft from large cold windows may remain the robber of comfort.



Nesbitt Syncretizer and Wind-o-line temper the downdraft, raise it out of impression range, and improve thermal balance.

NESBITT *Syncretizer* WITH WIND-O-LINE

Wind-o-line Radiation may be integrated as part of The Nesbitt Package of Syncretizer and storage cabinets.





Schools in Action

The opportunity to shape the destiny of an entire vocational group comes to few people as it has to Willard E. Givens during the past seventeen years. Few people faced with such an opportunity could exert the leadership which Willard Givens has provided. His record as executive secretary of the National Education Association has been one of unparalleled brilliance. Now he retires to live a little less strenuous life in his beloved state of California.

THE SCHOOL EXECUTIVE is proud to present a tribute to Willard Givens as a token of the appreciation which we and our readers have for him.

WILLARD E. GIVENS

AN AMERICAN SAGA

The trail of at least one Hoosier schoolmaster led around the world.

Willard E. Givens, Executive Secretary of the National Education Association, who retires August 1, after eighteen years in that position, was born in 1886 near Anderson, Indiana. In the Bootjack one-room rural school of Madison County, there began a career that is an American saga. Completing high school in nearby Lapel, young Givens entered Butler College at Indianapolis. After a year he transferred to the University of Indiana where he received his Bachelor's degree. His graduate studies were pursued at Union Theological Seminary, Columbia University and the University of California. Several honorary doctors' degrees have been bestowed upon him.

Through these steps in his education he earned his way in various enterprises, ranging from milking cows to laying rails on the Canadian-Pacific Railroad. During his service in the latter job he held night school for the Austrian laborers with whom he bucked ties and hammered spikes by day. After high school, supplemented with vacation occupations in farming, he taught three terms in a one-room rural

school. For two years he was a high school teacher at Noblesville, Indiana.

During World War I, Dr. Givens was instructor in the officers' training school at Mare Island, California. His educational work with the military took him after the war to Hawaii where he later became principal of the McKinley High School in Honolulu. The year 1921 found him in Oakland, California, as a junior high school principal, only to be recalled to the Islands as principal of the Kamehameha School for Boys.

In succession, Dr. Givens became superintendent of public instruction for the Territory of Hawaii; assistant superintendent of schools at Oakland; superintendent of schools at San Diego, California; superintendent of schools, Oakland. After seven years in the latter position he became executive secretary of the NEA.

Dr. Givens came to the helm of the world's largest professional organization at a time of widespread distress. The country's economy had collapsed. Thousands of teachers were not receiving their salaries. NEA membership was declining. Staff salaries were cut. There were insufficient funds to finance urgently needed projects of reconstruction.

From the depths of its most serious crisis, the organized



Chase News Photo
Willard E. Givens with Mrs. Givens and son Earl when Dr. Givens was principal of the McKinley High School in Honolulu, Territory of Hawaii.

profession, under the leadership of Secretary Givens, re-established its position at home and extended its influence in all the nations of the world. Dr. Givens worked in behalf of the UN and UNESCO. He contributed largely to the success of an unprecedented program of overseas relief to teachers, to an effective program of teacher exchange, to world-wide teacher organization. He was invited to Japan as a member of one mission and chairman of another to help lay the foundations of a democratic school system in that country. He was appointed Fellow of the Educational Institute of Scotland. He inspired educators and other citizens of a dozen countries to a deeper appreciation of democracy in the 'Round the World Town Meeting of the Air.

The NEA now includes in its direct and affiliated membership nearly 90 percent of American elementary and secondary school teachers. Membership at the higher education levels is growing rapidly. As a result of the work of this Hoosier schoolmaster, the prestige of the educator has been elevated, the welfare of children advanced, and the ideals of American democracy interpreted to many nations of the world. The NEA is recognized everywhere as a force in social progress.

—Belmont Farley

SECRETARY OF THE NEA

Willard E. Givens, as secretary of the National Education Association, has made a tremendous contribution to his profession. The scope of his influence has reached far beyond professional circles, with the result that millions of lay citizens have profited by his leadership.

Under his leadership the NEA has come to exercise a potent influence upon educational movements and upon

public affairs in the United States. Through his ability as an organizer, his vision, his courage and his marked ability to secure the assistance of educational leaders, the NEA has become the leading voice for public education, not only in this country, but among many of the liberty-loving peoples of the world.

It has been my good fortune to serve the NEA in some official capacity for the past twenty years, and I have witnessed with great satisfaction the tremendous growth of its membership and its activities. Dr. Givens has had the capacity to analyze the problems facing the profession and the ability to challenge his staff and other professional leaders in the field to seek solutions. He has truly mobilized the strength and the latent power that resided in the teachers of the United States in a program of action, and spearheaded civic concern among those who believe that our public schools are basic to the preservation of our democratic way of life.

Under Dr. Givens' leadership the NEA has grown in many ways. The membership has expanded from a small group of teachers to a body of half a million. The budget has increased from less than half a million dollars to more than two and one half million, supporting a highly trained professional staff and scores of educational activities. Space does not permit the listing of the many forward movements undertaken under his leadership or the many worthy activities which have been advanced under his personal guidance.

In conclusion, I wish to cite a recent resolution of the Board of Trustees of the NEA in tribute to Dr. Givens:

"Be it resolved by the Board of Trustees that as a Board and as individuals we record our complete recognition and appreciation of his wise administrative leadership, his unselfish devotion, his untiring efforts, his broad vision and his active leadership in the attainment of the Association's goals and ideals."

—A. C. Flora

Chairman, Board of Trustees, NEA

EDUCATIONAL STATESMAN

The administration of Willard E. Givens is now written into the history of American education as the "Givens Era." The story of the NEA for the last eighteen years has revealed the true role of the schools as never before.

As education has been the tool of dictators to deceive and enslave, much more has it become the minister and servant of free society. But in the democratic governments of the old world the habit of centralized control so prevalently persists that institutions of education are all too much the agents of governments and governmental policy, rather than the "grass-roots" generators of the ideas of self-government for free society with a minimum of authoritarianism. Our United States system of education is ideally built on the policy of state and local administration. The great task from the days of Horace Mann has been to lead the constructive evolution of education as the creative force of free society toward commonly accepted goals which represent the heritage of freedom in all fields comprising the American way of life.

The united teaching profession is the instrument through which this has been achieved. The administration of Willard Givens has built the NEA, its affiliates and allies into a power

resting upon enlightened public opinion that attains nationwide use of education as the bulwark of our national progress, and universally "promotes the general welfare, and secures the blessings of liberty to ourselves and our posterity."

To have thus stimulated the profession to do the job of unifying the aims and the means of the main program of American education is statesmanship of the highest order. That is what the "Givens Era" has accomplished. The evidences of this are many: a teaching body with professional standards, and salaries now beginning to attract recruits of highest ability; a universal elementary program of education; a high school program 75 percent effective; a college and university output of graduates (430,000 in 1948) far exceeding the entire college enrollment of all principal European democracies, representing a ratio of one college student to every 75 persons in the United States compared with one college student to every 425 persons in European democracies; a defense mechanism against attacks on democracy and education; and finally a supreme accolade to American education in setting up a school program upon which conquered Japan might create a free society and a democratic system of government. These high levels have all been reached under the leadership of Willard E. Givens as Secretary of the NEA.

—Frederick M. Hunter

THE MAN

Everyone who is interested in education in our nation knows Dr. Willard E. Givens, the educator, but not so many have been privileged as I to know him as a personal friend. We first met when he was principal of the McKinley High School in Honolulu, about 33 years ago. Our mutual interest in the welfare of our schools, and especially in the vital young students of these schools, formed a bond of friendship which has deepened and strengthened through the years.

Willard Givens is a big man—physically, morally, and spiritually. His inner self matches his fine outward appearance. He is sincere in his beliefs, which are reached after careful consideration. He is a man of moral and intellectual integrity.

Willard Givens was born on a farm in Indiana, where he grew to love all nature. He planned to enter the ministry, and studied under Dr. Harry Emerson Fosdick. Here he learned humility and a deeper understanding of human nature. But he finally decided that in the ministry he would be dealing with adult life, and the urge to train the youth of our nation caused him to obtain a degree in education. A very important event took place in his life about this time. He married a fine young woman and this union led to a fuller, happier life.

To me Willard Givens epitomizes the fine qualities of humility, integrity, steadfastness to an ideal, and the human understanding that makes a man truly great. Growth is the keynote of his life. Surely Edwin Markham spoke well:

*"We all are blind until we see
That in the human plan
Nothing is worth the making if
It does not make the man!"*

—L. E. Armstrong



Willard E. Givens Looks to the Future

We know that there are extraordinary possibilities in ordinary people, and that if we open the doors of opportunity so that all youth can develop the best that is in them, we get amazing results. We must put this ideal into full practice. Our country cannot maintain world leadership unless we develop all of our people.

The two great ideals for us to fully develop are democracy and peace. We must practice the basic principles of democracy in home, school, church, community, state, nation and the world.

We must face squarely the question of how we can use the combined intelligence, good will, manpower and material things of the world to promote the cause of permanent peace. The development of all the people around the world is basic to peace. We must help develop the ideal and desire for freedom everywhere. All nations eventually must have a government conducted of, by and for free people. All men should have freedom. Those of us privileged to live in the greatest country on earth must do everything within our power to extend our hard earned freedom to all our brothers around the world.

Much depends upon us—the educators in the greatest country on earth: "Let us have faith that right makes might and in that faith, let us to the end dare to do our duty as we understand it."

—Willard E. Givens

Superintendents Appraise Pre-Service Training

A STATE advisory committee, organized to cooperate with the staffs of Peabody College and Teachers College in considering what part North Carolina should take in the Co-operative Project in Educational Administration sponsored by the Kellogg Foundation, conducted an investigation as one of the preliminary steps in determining wherein the pre-service training of school administrators might be improved.

The investigation was prompted by the realization that the importance and complexity of modern school administration demand a practical program of pre-service training. The investigating committee considered it timely for colleges and universities to appraise the present features of the pre-service program on the basis of worth-while contributions in preparing administrators to deal with the problems confronting them on the job. It was presumed that because school administrators are the recipients of the training and are held most directly responsible for administrative practice, they are best qualified to advise the training institutions on the needs for emphasis on certain features of the pre-service program.

By necessity the scope of the study was limited to the position of the school superintendency in North Carolina. Therefore check-sheets were sent to the 172 school superintendents of North Carolina with the request that they indicate whether the pre-service emphasis was too high, correct or too low for certain

areas of study usually taught by educational departments, certain related courses frequently offered by other departments and various teaching methods employed by the training institutions.

One hundred of the 172 check-sheets were returned with the information requested. The frequencies of superintendents' ratings regarding the needed emphasis on various areas and methods of pre-service training for their positions are indicated in Tables I, II, and III.

Education Department Courses

The 39 units or areas of pre-service study listed in Table I were selected by the investigating committee on the basis of their frequent treatment in school administration courses and their application in general school administrative practice. Obviously some of the units listed are overlapping just as they are when taught in education departments. Moreover, some of the titles of units are so brief that interpretations may differ slightly with respect to their meaning. Nevertheless the ratings and the comments supplementing them suggest that there is considerable agreement on the meaning of unit titles.

A general observation of Table I discloses that, for the great majority of units, more emphasis by the training institution is considered desirable. In fact for only the last item of the table, "extracurricular activities," are there as many superintendents who believe the teaching emphasis is "too

E. C. BOLMEIER
Department of Education
Duke University
Durham, North Carolina

high" as there are who believe the emphasis is "too low." It may be noted further that, for approximately half of the items, the "too low" emphasis is checked as often or more than the "correct" and "too high" combined.

The preponderance of the "too low" ratings for emphasis on the various units implies that the total amount or quality of pre-service training in school administration has not been enough generally to prepare the superintendent adequately to deal with his problems, and suggests that the emphasis devoted to the total pre-service training for the superintendency be augmented. Even though the training institutions may not be in a position to stretch the training period or to increase the total course requirements for prospective school superintendents, they could and should adjust emphasis on the various areas of study in accordance with practical needs.

More School Law Courses Urged

It is significant to note from Table I that the legal aspects of school administration rank highest in the frequency of areas which superintendents believe should receive greater emphasis. Only two superintendents indicate that the emphasis was "too high" in this area; 24 believe the emphasis was "correct"; whereas 74 superintendents (approximately three-

fourths of the total number reporting) consider that the emphasis was "too low." That superintendents believe more training in school law is needed was emphasized further by the fact that eleven of the 74 superintendents indicating emphasis was "too low" asserted it was "grossly too low." Superintendents offered various suggestions with respect to the nature of a needed course in school law. Several believe that a systematic study of the state school code would be helpful in training administrators. Others pointed out the need for a study of case law so that legal principles might be applied more effectively in administrative practice. In all probability a thorough and practical course dealing with constitutional law, statutory law, and judicial law as related to education would be satisfactory to the majority.

According to most of the superintendents, another neglected area pertains to pupil services. All too often superintendents are compelled to "learn from bitter experience" how to deal with the perplexing problems of transportation, lunches, safety and health. They feel more attention should be given in the pre-service training to desirable tested procedures for dealing with the actual problems which will probably appear in this area.

Other areas of pre-service training which the majority of superintendents regard as needing more emphasis are in order of frequency: conducting a bond issue, purchasing school equipment, evening classes for adults, in-

TABLE I

Opinions of 100 school superintendents in North Carolina indicating whether the pre-service emphasis on certain areas of school administration was too high, correct, or too low for meeting actual needs of the superintendency

Units or areas of pre-service study in education departments designed for the preparation of school administrators	Percent Rating Relative Emphasis		
	Too high	Correct	Too low
Legal aspects of school administration	2	24	74
Pupil services (transportation, lunch, health, etc.)	—	29	71
Conducting a bond campaign	1	30	69
Purchasing school equipment	—	32	68
Evening classes for adult education	1	34	65
In-service training of teachers	3	34	63
Providing for atypical children	3	35	62
Planning school building programs	2	38	60
Relations to state department of education ...	—	43	57
Handling of school supplies	1	42	57
Business management of schools	—	44	56
Federal relations to education	8	37	55
Sources of school revenue	2	43	55
Socio-economic forces on school administration	3	44	53
Fiscal control (dependent, independent)	2	46	52
Pupil guidance and counseling	2	46	52
Budgetary procedures	2	47	51
Recruitment and selection of teachers	2	47	51
Financial accounting	2	49	49
Working with the local board of education ...	2	50	48
Promoting school attendance	—	54	46
Utilization of school property	—	54	46
Administrative school units (county, city, district)	3	52	45
Selection of school sites	2	55	43
Teacher welfare provisions	5	57	38
Coordinating staff activities	3	62	35
Democratic practices in administration	4	64	32
Organization of administrative and staff personnel	4	65	31
Cumulative records system	7	62	31
Salary schedules	5	65	30
Qualities of administrative leadership	4	67	29
School-community relations	4	68	28
Practices of pupil promotion	5	67	28
Curriculum planning and administration	7	65	28
Supervision of teaching	5	68	27
Reporting pupil progress (report cards)	7	67	26
Administering standardized tests	16	58	26
Grade organization (8-6, 6-6, 6-3-3, 6-4-4, etc.)	9	75	16
Extracurricular activities	15	70	15

service training of teachers, providing for atypical children, planning school building programs, relations to state department of education, handling of school supplies, business management of schools, federal relations to education, sources of school revenue, socio-economic forces affecting school administration, fiscal control, pupil guidance and counseling, budgetary procedures, and recruitment and selection of teachers.

Although there are no areas in which the "too high" emphasis has been rated more often than the "too low" emphasis it might be well to note those areas in the lower frequency of the tabulation. For example, one might speculate as to why the problem of extracurricular activities is rated less frequently than others as needing emphasis. A possible explanation is that problems pertaining to that subject as well as to administering standardized tests, reporting pupil progress, and practices of pupil promotion are usually delegated to the school principal. If the check-sheets had been executed by principals instead of superintendents it is highly probable that the

items would have appeared in a different frequency order.

There might be some question also as to why such important areas as "curriculum planning," and "supervision of teaching" appear so low in the frequency order. Here again the superintendent might consider that, since other staff members are usually delegated responsibility in these areas, it is less necessary for the superintendent to specialize in them. Some might question the logic of such reasoning.

Courses in Other Departments

Colleges and universities usually require a minimum number of semester hours in a department other than education for students seeking a graduate degree in school administration. Apparently the departments in which students are required to take their minors are not always the departments from which superintendents consider they might have gotten the greatest help.

Although some universities do not specify law as a field in which prospective school administrators might pursue a minor, it is significant to

note that law is most frequently checked as the field in which superintendents believe more pre-service training would be beneficial. Nearly three-fourths (73 percent) of the superintendents reporting indicate that the relative emphasis on pre-service training in law is "too low."

The high frequency order of legal aspects of school administration in Table I and law in Table II indicates emphatically that superintendents regard school law as the field most neglected in their pre-service training. Perhaps if a thorough course in school law were taught in the education department there would be less demand for courses in the law department, or, conversely, if a course designed for school administrators were taught in the law department there would be less demand for a law course to be offered in the education department. At any rate it would be desirable for the two departments to cooperate in providing such training as would be helpful to administrators in dealing with matters requiring legal understanding.

Another area outside the education department in which superintendents would like more training is public finance. The increasing cost of public education and the perplexing concomitance of school finance with other phases of public finance undoubtedly contribute to this desire. Although "public finance" may be regarded as a branch of economics or government, its higher frequency order suggests which offerings of those departments are most beneficial to prospective school administrators.

Public Speaking Wanted

Over half of the superintendents reporting indicate that not enough emphasis is devoted to developing ability in public speaking. In addition to the ratings on this item, the supplementary comments of numerous superintendents suggest that, with the increasing need for better school-community relations, more attention be given in preparing superintendents to speak effectively.

Psychology ranks lowest as a field which superintendents regard as necessary for effective school administration. Possibly this is due to the fact that many of the practical aspects of psychology are treated in courses offered by the education department. Moreover, the position of

TABLE II

Opinions of 100 school superintendents in North Carolina indicating whether the pre-service emphasis on certain courses outside the field of school administration was too high, correct, or too low for meeting actual needs of the superintendency

Courses and study outside field of educational administration which may be helpful in solving school administrative problems	Percent Rating Relative Emphasis		
	Too high	Correct	Too low
Law	2	25	73
Public finance	1	37	62
Public speaking	1	40	59
Social anthropology	2	51	47
Mental hygiene	—	56	44
Child health	—	58	42
Public administration	1	58	41
Economics	1	67	32
Government	3	68	29
Sociology	4	74	22
Philosophy	6	76	18
Psychology	13	71	16

psychology in the frequency order might have been different had the check-sheets been filled out by classroom teachers instead of superintendents. It should be noted that mental hygiene which is closely allied with psychology ranks relatively high.

Various Teaching Methods

Inadequate stress on certain phases of pre-service training is not always attributable to insufficient time devoted to the course or unit of study. Numerous superintendents point out that it is frequently improper instructional methods which detract from the desirable emphasis.

A study of Table III reveals that superintendents do not regard the traditional classroom method of teaching as the most effective in preparing superintendents for their positions. For example, strong resentment is expressed against the lecture method. Over three-fourths (76 percent) of all the superintendents reporting are of the opinion that the lecture method of teaching is over-emphasized. Only 4 percent would favor greater emphasis on the lecture method. Not much more support is given to the writing of term reports.

Superintendents generally contend that the less commonly employed methods providing practical experience are desirable. Experiences such as are characterized by internship or apprenticeship are strongly advocated. The fact that 88 percent of the superintendents indicate that "too low" an emphasis is placed on the internship method of preparation should give encouragement to institutions inaugurating the internship program for prospective administrators.

Other techniques which superintendents believe are not emphasized enough are those pertaining to field studies, clinics, and school surveys. In fact, all the methods of pre-service training winning high approval provide practical experience with existing administrative problems.

Judging from the ratings shown in Table III and the written comments of superintendents supplementing those ratings, it may be concluded that the majority feel there is too big a gap between theory and practice. If the entire pre-service program deals with theory only, such as is frequently characteristic of the lecture method of teaching, superintendents

Teaching methods employed by institutions training prospective school administrators	Percent Rating Relative Emphasis		
	Too high	Correct	Too low
Internships	—	12	88
Field studies	1	15	84
Clinics	—	29	71
School surveys	4	35	61
Conferences	1	41	58
Workshops	3	43	54
Research projects	2	58	40
Seminars	4	60	36
Term reports	37	54	9
Lectures	76	20	4

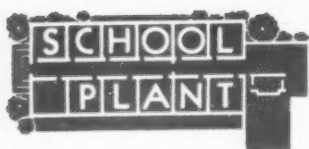
are compelled later to "learn the hard way" in dealing with situations for which they must assume full responsibility. Obviously a more gradual transition is desirable. A fusion of pre-service and in-service experiences whereby students have the opportunity of working with actual administrative problems, such as are provided by field studies, surveys and internships, while still under the direction and supervision of the training institution, is worthy of consideration and development.

Other Investigations Suggested

The conclusions which may justifiably be drawn from this investigation are definitely limited. Although the high frequencies of ratings on certain items of the check-sheet appear impressive, it is realized that they are influenced by many variations with respect to the amount, time and place of the pre-service training, as well as to the local conditions surrounding the different superintendencies represented in this study. Nevertheless, the ratings and the comments made by the superintendents perhaps reflect a composite estimate—unreliable though it may be—of the typical in-service program for preparing school administrators.

If the findings of this study should be helpful—even in a small degree—toward improvement of the pre-service program for school superintendents, an expansion of the investigation might be considered. For example, the services rendered by the training institutions to superintendents during the in-service period might be evaluated also in terms of contributions to the solution of numerous administrative problems. The scope of the investigation might be broadened also by applying it to the school principalship. In fact a comparable study with respect to pre-service training of school principals would have more pertinency because the principalship is a common step between completion of graduate study and the superintendency.

The phase of the investigation referred to in this report gives evidence that the number and length of courses do not constitute the only factors which contribute to the effective preparation of the school superintendent. Quality and methods of instruction are significant factors also. An attempt should be made to emphasize and combine those factors which are most productive in improving the quality of school administration.



A New Design for Multi-Functional Classroom Tables

MODERN-MINDED school people continuously strive to create new ways to cope with changing curricular needs. Teachers nowadays must expedite a variety of new learning experiences in the classroom to help boys and girls develop the important patterns of behavior needed to live successfully in our society.

Educators are meeting the challenge with improved resources to do their job. They are devising improved teaching techniques, developing better instructional materials, working out more effective ways of organizing the curriculum, streamlining administrative practices, designing better school plants and facilities.

Noteworthy among improvements is the furniture designed to meet new

ALEXANDER H. HOWARD, Jr.
 Director, Office of Visual Education
 Central Washington College of
 Education
 Ellensburg, Washington

classroom functions. Modern schools have abandoned the traditional seat-desks fastened down in formal rows, because today's teaching-learning activities require more versatile equipment. Not so long ago boys and girls spent the major part of their time in school reading and reciting individually. While this is still an important learning activity, boys and girls devote a considerable share of classroom time today to participation in group activities.

Group Participation

Inclusion of these group activities

in regular classroom programs is an outgrowth of the realization that in our society cooperative group action is vitally needed, and educators are accepting responsibility for helping youth develop appropriate behavior. Schoolpeople are promoting varied opportunities in the curriculum for boys and girls to develop the special knowledge, skills, and feelings necessary for participating cooperatively and effectively in groups.

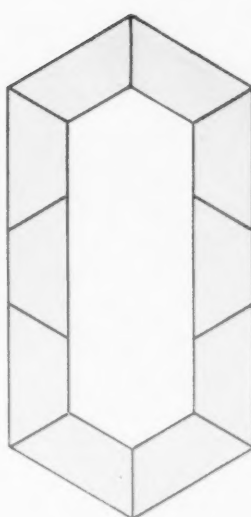
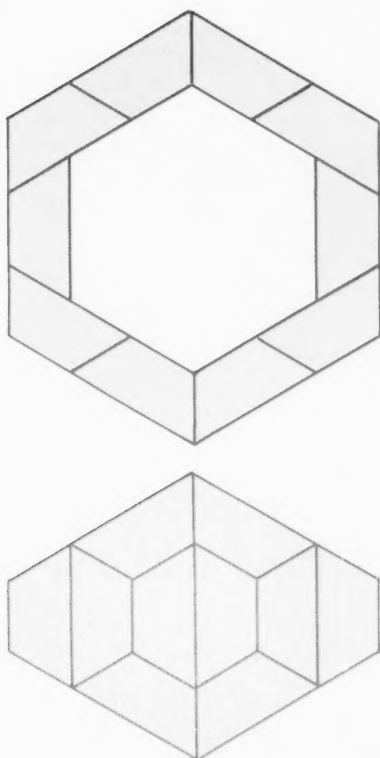
Need Furniture for Function

Teachers face many difficulties in their attempts to use a variety of group activities as an integral part of classroom procedure. One is the problem of arranging appropriate seating and work space. While usual classroom furniture works well for



Multi-functional tables used in a classroom of the Salt City School, Liverpool Central School District, New York.

Photo Courtesy National School Furniture Co.



Discussion group arrangements: above, large discussion groups; lower left, medium-sized discussion group.

the more traditional activities for which it is designed, many current chair and table designs often prove to be inconvenient for use in programs intended to serve a broad pattern of developmental objectives. Teachers need chairs and tables that can be rearranged easily and quickly within the classroom so as to facilitate several different activities.

Difficulty is experienced, for example, in arranging the classroom for problem-centered group discussion, particularly the currently favored face-to-face group situation. In this case each individual, including the teacher or discussion-leader, must be seated so he can face every other member of the group—can see and hear every member of the group easily—can react immediately to each contribution made without leaving his position. To do this individuals sit around a table or set of tables with the leader a member of the circle.

For this kind of situation teachers and students usually resort to pushing their desk-chairs or work tables into a rough circle. In some cases

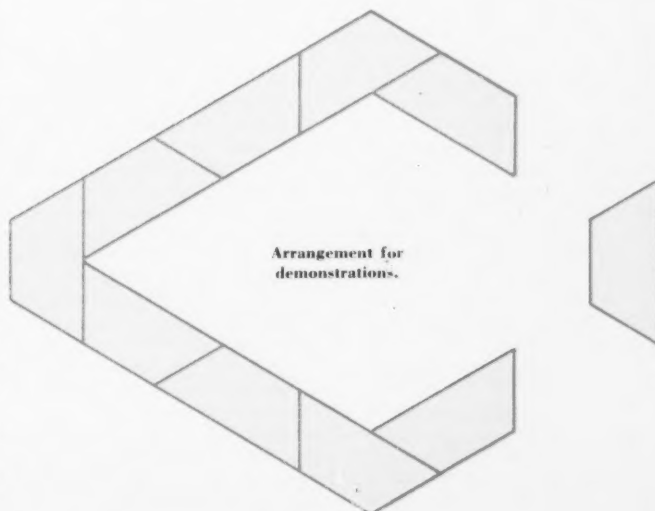
classrooms are supplied with special large oval or circular conference tables. But in the first instance the work space consists of scattered desk tops or an irregular group of table

surfaces, too often bothersome in handling group discussion materials. In the second instance the presence of a large and bulky table greatly restricts the use of the room for other important activities.

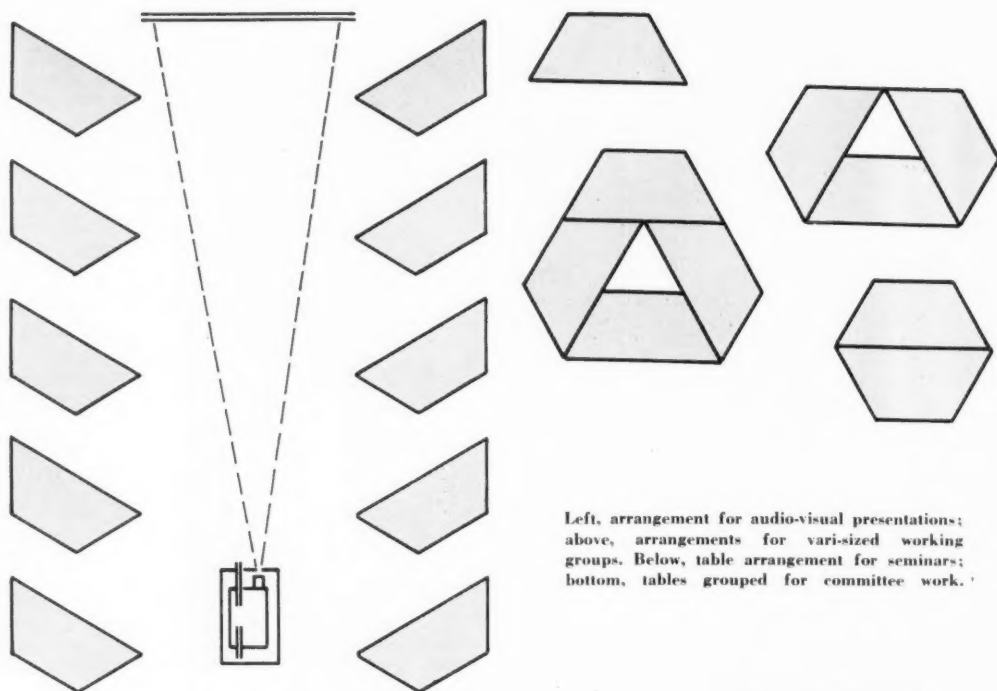
A Proposed Solution

In seeking a better solution to this problem the author experimented with the idea of developing sectional table units which could be fitted together in different patterns to form working surfaces of varying sizes and shapes. In this way it would be possible to provide really usable work tables for a great variety of teaching-learning situations within a classroom. The furniture would be adaptable to the new group discussion activity as well as listening to lectures, taking notes and doing other writing, reading and reciting, taking tests, oral reporting, role-playing, watching demonstrations, reacting to audio-visual aids, carrying on committee work, and most other activities used in modern classrooms.

Several tries at dividing a circle into sectional polygons resulted in the discovery that a unit having the trapezoidal shape of a half-hexagon is interchangeable with any other such unit. A number of these shapes fit together in various ways to approximate oval and circular areas. Yet the half-hexagon is not too far removed from the standard rectangular table top commonly used for many classroom activities. Testing classroom



Arrangement for demonstrations.



Left, arrangement for audio-visual presentations; above, arrangements for vari-sized working groups. Below, table arrangement for seminars; bottom, tables grouped for committee work.

possibilities with models revealed that this is a workable solution.

Proved in Practice

The favorable response of the many teachers from all levels who were confronted with the idea led to the construction of a full size set of eight tables for further experimentation in real teaching-learning situations. Their use has proved to be highly satisfactory in graduate education seminars at the University of Chicago, and the tables are currently being used in research on group dynamics at that institution. Perkins and Will, school architectural firm in Chicago, received the idea with enthusiasm, and immediately incorporated custom-built sets of these versatile tables in the new Blythe Park Elementary School recently built in Riverside, Illinois, where they have since proved their worth.

Many Functional Uses

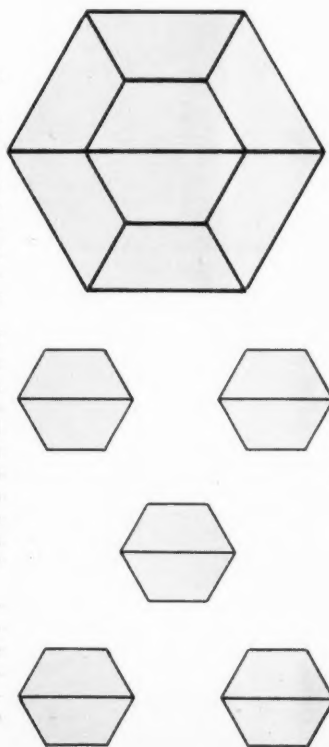
The accompanying diagrams show only a few of the many functional arrangements possible with these tables. These diagrams are set up in terms of the "typical" classroom situation

involving ten table units and chairs for 30 individuals.

Teachers who have considered the idea have seen immediate possibilities for their own teaching situations, from the primary grades on up to adult education. The tables need only to be made with appropriate dimensions of top size and leg height, and permit a wide variety of arrangements within the space limits of the average classroom.

You may experiment for yourself by making simple scale models of the table tops out of cardboard with a compass, ruler and scissors. Applications to present program needs will be seen, and perhaps ways to improve instruction as well. A few moments spent at arranging your own models will spark your thinking about the many ways in which this table idea could be used in your situation. Try it!

Here is an idea which might contribute in a small way to the continuous improvement of the educative process. Its ultimate value will depend upon the ingenuity and resourcefulness of the schoolpeople who use it to their advantage.



THE subject of teacher orientation is broad in scope. It relates to more than the new teacher in the system; it is concerned with more than the customary concept of supervision; and it deals with phases of administrative practice. Primarily, it is devoted to the problem of making teachers feel secure, to giving them the direction and means of reaching goals, and to building morale and good will. Involved in the process of teacher orientation are many individuals—children, parents, teachers, administrators and board of education members.

It is our practice to hire teachers from different colleges, thereby capitalizing on varied academic experiences and methods of teaching. Each new teacher, usually engaged in the spring to begin work the following September, is presented a portfolio known as the "Teacher's Kit." Its contents are explained and discussed. Any questions arising from its study during the summer months are answered at a staff meeting on the day before school opens in the fall. The contents of the portfolio are:

Teacher's Kit

A list of dwelling places. One of the primary concerns of the new teacher is a place to live. Families in the community are encouraged to register available rooms with the main office of the school. Periodic checks keep the list active. In like manner, the school helps to find apartments for many of the young married couples.

Handbook for parents. Sources of much misunderstanding and friction are eliminated for new teachers, as well as for parents, by use of the *Handbook for Parents*. This book discusses requirements for children entering kindergarten, attendance, excuses for absences, truancy, complaints, promotions, contagious diseases, dental clinic, school nurse and doctor, report cards, manuscript and script writing, assembly programs, visiting, care of books and property, bus rules, released time for religious instruction, and double sessions. Teachers gain additional knowledge of the schools from this handbook.

Writing book. To insure consistency in teaching writing, each new teacher is required to complete the exercises in the *Winnetka Writing Book*. The manuscript writing book

is used by teachers in kindergarten through second grade. Others use the script writing book.

Report cards. Two years ago, after considerable research, committees of teachers and parents devised new report cards. Three different cards are used: one for the kindergarten, one for the first two grades, and one for grades three through eight. An insert in the report cards makes parents and new teachers acquainted with the objectives of the different classes. Teachers use the insert as a check sheet when writing anecdotal parts of the report cards.

School calendar. The calendar provides the teacher with a schedule of vacations and various activities.

Salary policy. Features of the schools' salary policy, including provisions for leaves without salary deductions, are explained in detail.

Handbook for the individual school. Some of the schools have developed handbooks specifically related to conditions within that school and community. Directions for supervision of lunchrooms, pupil transportation and playgrounds are given. Lists of workbooks and textbooks, use of libraries, staff meetings, audio-visual equipment, and resources (human and material) in the community are but a few of the items discussed.

Code of board of education. The board of education has a code outlining the duties of all personnel. That part which has reference to teachers is included in the kit.

Teachers' association materials. New teachers are provided copies of the by-laws. They are interested in the fact that the association administers the distribution of extra-curricular activities to teachers. A card file

is kept to insure equitable distribution of work and to prevent willing teachers from becoming overburdened. A social events calendar is arranged by the teachers' association. Such activities as basketball games, card parties, bowling parties, annual board of education dinner, and dates for New York shows assist in making teachers' lives more interesting.

Courses of study. Courses of study are continuously being revised. They are suggestive rather than mandatory instruments, and teachers are encouraged to evaluate them as they are being used. They are not lists of subject matter, but include a modern philosophy of education, suggested activities, places for excursions and trips, lists of audio-visual materials, and suggested methods of teaching.

Bulletins. Teachers' bulletins cover a wide range of topics from the teaching of reading, arithmetic, spelling and other subjects, to instructions for good classroom management. They include original material by teachers, principals and the supervising principal as well as reprints from professional journals. Included in these bulletins is one by the supervising principal entitled, *What I Expect of a Teacher*, which new teachers find helpful. In it is stated his philosophy of education; the role that organization and discipline play in teaching; the relative importance of subject matter, methodology, and concepts of child growth and development; and the function of special teachers or supervisors.

Professional Libraries

As in any profession, research and the interchange of ideas are necessary

Teacher Orientation

CARLETON M. SAUNDERS

Supervising Principal
Bridgewater Township Elementary Schools
Raritan, New Jersey

for growth. Books, pamphlets, magazines and mimeographed materials comprise the bulk of the professional libraries. These materials assist in the orientation of teachers.

Located in the main office, the professional library has grown to considerable size through a yearly budget item for this purpose. The chief users of this library are teachers and principals working for college credits and degrees. To a lesser degree it is used for the solution to problems involving a school or class. Included in this library are professional articles clipped from the many educational magazines purchased each year. The magazines are used by principals and teachers through a rotation plan to each school. They are encouraged to suggest additions to the library. In making plans recently for a new school building, all personnel (including the custodians) utilized this library for an extensive study lasting two months.

In addition to the main library, each school has its own professional library of books on philosophy, curriculum and modern educational practices. Each new teacher is encouraged to study this core of books. In addition to other professional magazines and books, each school has its own audio-visual aids and equipment. An attempt is being made currently to increase the number of audio-visual aids to enrich the study of social studies, mathematics and science. Supplementing these libraries are materials from the county visual-aids library upon which the teachers draw heavily.

Supervisory Reports

Written reports are given to all teachers. Non-tenure teachers receive an average of seven reports a year from their building principal and three from the supervising principal. Thus a teacher is continuously apprised of his growth and progress. Visits are made at different times on different days of the week in order to see the teacher's work as a whole.

The building principal writes a report only after several consultations with a new teacher, while the supervising principal, who is handicapped because of six schools and other administrative duties, holds conferences only upon request. From the total of these reports at the end of the year the supervising principal

evaluates the teacher in terms of strengths, weaknesses and recommendations. When a teacher leaves the system, this composite report is sent to any prospective employer. As with the supervisory reports, each teacher receives a copy of the composite evaluation. Teachers under tenure are given supervisory reports, but considerably fewer in number than the non-tenure teachers. Good teachers who have been with the schools for a number of years enjoy, and deserve, a word of commendation for their efforts and accomplishments.

Conferences

Reference has been made to the fact that the building principals hold many conferences with teachers. These meetings are individual, held either at the request of the teacher or the principal. Special teachers of home economics, industrial arts, speech, physical education and music also hold many conferences throughout the year with classroom teachers.

Problems with which teachers and principals are concerned are studied in faculty meetings throughout the year. Each school is encouraged to adopt a theme for the year pertinent to the community in which it is located. Results are shared with other schools by means of a series of weekly meetings of supervising and building principals.

Other conferences are held by teachers interested in a particular problem. For example, the five recreation workers meet on call to discuss their programs, which involve after-school and Saturday morning recreational activities for children. To save time and to clarify some of the issues, each worker is requested to submit a written report before the meeting. Home economics and industrial arts teachers are meeting next year with classroom teachers to discuss mutual problems.

In-Service Activities

One of the best methods of orienting teachers is an in-service training program. Considerable experimentation has been tried in our schools within recent years, with the following resulting fourfold program:

Program for new teachers. Since there will be at least 22 new teachers in the system next year, the need for orientation of these teachers is ob-

vious. Therefore a series of one-hour meetings for new teachers has been arranged for the first fifteen weeks of school. Members of the staff will meet with new teachers (the majority of whom have never taught before) and explain methods and procedures in the fields of health, physical education, music, language, arts, supervision and administration. Speakers from the community will discuss civil defense and health. Each speaker will deliver a prepared 30-minute address to be followed by a question-and-answer period.

Three-day program. A special in-service program will be arranged exclusively by the teachers for the three days prior to Thanksgiving. Through careful pre-planning they have obtained master teachers from many colleges, universities and schools who have given incentive for growth and improvement. All teachers in the system are consulted and the majority are given active participation in the arrangements. Children in the schools are used for demonstrations, and parents are invited to attend the sessions. The board of education finances the project.

Yearly program. The theme of health will be used by all schools for study during the coming year. Community groups will be consulted and invited to cooperate in this study; PTA's have already signified their intention to devote time to this theme.

Special projects. Spaced throughout the year, special activities serve the purpose of orienting new teachers. At the beginning of the year each school holds a flower show. In January a book exhibit of the latest books, workbooks, and teaching aids provides teachers with an opportunity to see the tools they may wish to purchase. In the spring a science exhibit of work done by children and teachers encourages an interchange of ideas in science. A hobby show held by one school may spread to a system-wide hobby show.

By means of the above methods and techniques teachers are oriented in our schools. They work hard and receive satisfactions through cooperative planning, working and evaluating. It is hoped that they are well oriented to our system of education and in turn will give new ideas to those of us who have been in the system longer than they.



High School Marks: Comparative or Individual?



SHOULD a high school pupil's work be evaluated and marked by comparing his accomplishment with that of other pupils, or by comparing such accomplishment with the pupil's past growth and ability? On the one hand, the high school has the example of the college and university, which evaluate almost entirely by comparing a student's achievement with that of the group. But, on the other hand, the elementary school to a greater and greater extent is considering each child's achievement in the light of his abilities, effort and individual growth.

A recent public opinion survey posed the question in this way to the people of Pasadena: "Do you think a pupil should be graded, promoted and graduated according to how he compares with other pupils, or according to the effort he makes to use his own intelligence?" The answers from the general public and from the Pasadena teachers were:

EDWARD H. LaFRANCHI
Associate Professor
University of Southern California
Los Angeles

	Public Teachers	
According to effort	69.0%	66.7%
How he compares		
with other pupils	14.8	18.3
Both	3.2	5.3
Don't know	13.0	9.7

The answers from the general public, when broken down into parent and non-parent groups, were:

	Parents	Non-Parents
According to effort	70.6%	68.4%
How he compares		
with other pupils	17.3	13.9
Both	1.4	3.8
Don't know	10.7	13.9

It would seem, therefore, that when put to a popular vote and applied to all public school levels, a substantial majority in each of the groups favors rating on the basis of individual abil-

ity. Probably most surprising in the survey results is the substantial agreement in the distribution of the answers from the several groups polled. Also of note is the fact that a higher proportion of the general public than of the teachers believes that the basis of grading should be the individual's ability rather than the group's accomplishment.

The question, however, deserves more complete analysis. A simple answer designed to cover all marking situations at the high school level is hardly defensible. Before attempting such an analysis, certain basic assumptions will be made.

Basic Assumptions

It is assumed that every normal youth is entitled to a high school education. This leads to the assumption that the high school curriculum should be designed to meet as well as possible the needs of all types of normal youth, regardless of vocational aim or academic ability. It follows that a sound educational program must be provided for those whose abilities will qualify them to pursue the most rigorous academic career in college or university, for those who are completely non-academically inclined, and for all between these extremes. The high school should do this with equal respect for all groups and with proper appreciation for the contribution which each group will make in its vocational pursuits.

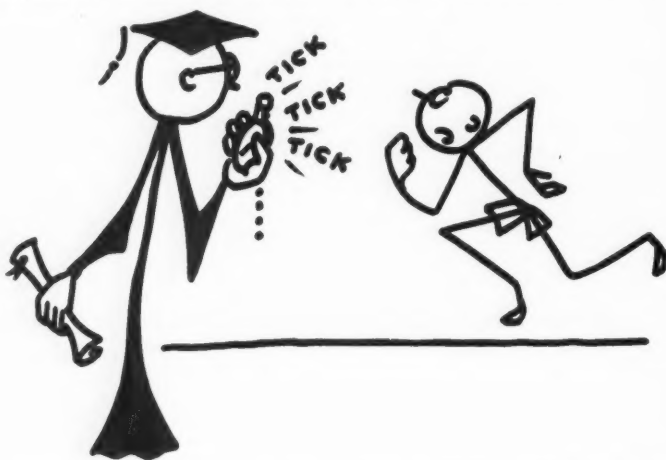
It is also assumed that all pupils of good character who complete the high school course of study are entitled to a diploma of graduation. The



diploma signifies four years of application toward self-improvement. It is not and should not be considered evidence that a pupil has achieved any designated standard of accomplishment in reading, in spelling, in arithmetic, in science, or in any other academic or non-academic field. This does not mean that capable individuals should not be required to meet acceptable standards in these and other areas, nor that all pupils should not be encouraged to put forth their best effort in all undertakings. It does mean that a pupil of low academic ability would not be denied high school graduation because he could not meet an arbitrary standard in one or more academic areas.

We might as well refuse to graduate those who have never "learned" to run the 100-yard dash in fifteen seconds or under. Any arbitrary

standard that might be set in academic fields would be almost as foolish; some would never be able to attain it, and others would have exceeded the standard before ever entering high school! If the first assumption is accepted, how can a high school education be considered the privilege of all youth unless those of low academic ability are also rewarded at the end of their work?



If the third assumption is accepted, it follows that employers or others interested in high school graduates must not rely on the diploma as evidence of the holder having reached any particular standard of academic achievement. Rather, employers and others who are concerned about a graduate's abilities, character, citizen-

ship and school accomplishments must write to the high school and present specific questions concerning the requisite qualities and accomplishments, or otherwise determine them.

Variable School Situations

Today's high school program is varied. Some courses are required of all pupils; others are electives. In certain subject fields, pupils are required to take at least one of several available courses. In some cases choice is allowed from several possible curriculums, but once made, courses within the chosen curriculum become required.

Some courses are designed quite specifically to meet college entrance requirements. Some are planned to develop pupil talents. Others have the purpose of specific preparation in a vocational field. Still others are de-

signed to develop youth through industrial arts and to acquaint them with the tools of our industrial civilization. Physical education, driver education, health and safety education, basic academic skills, citizenship training, and preparation for home and family life are major purposes of still other courses.

Test of Ability

Some courses are designed quite specifically to meet college entrance requirements. Some are planned to develop pupil talents. Others have the purpose of specific preparation in a vocational field. Still others are designed to develop youth through industrial arts and to acquaint them with the tools of our industrial civilization. Physical education, driver education, health and safety education, basic academic skills, citizenship training, and preparation for home and family life are major purposes of still other courses.

In a measure, the pupil's accomplishment in algebra and geometry as well as in other college entrance requirements is a test of his ability to succeed in higher education of the academic variety. The evaluation made of his work in such courses will indicate to the pupil, to his parents and to higher educational institutions the pupil's aptitude for accomplishment in academic courses. The consideration of factors other than actual accomplishment in competition with others, or with specified standards, would be misleading to those who are interested in the evaluation.

Alternative Electives

In view of these facts there seems to be little reason to consider the pupil's individual ability when appraising his achievement in these subjects. Rather, marks should be determined largely on the basis of achievement on an absolute scale such as measurement by standardized achievement tests. Those pupils who score high on tests and in work accomplished would receive high marks, and those who cannot achieve a minimum standard might well receive a mark indicating a lack of accomplishment. Preferably, of course, the use of prognostic tests and a sound counseling program would prevent most such pupils from enrolling in the courses, and would discover others early in the course and advise their transferring to more suitable mathematics courses.

College Entrance Prerequisites

How do these variables affect the answer to the question of grading high school students? At least in certain situations, definite implications present themselves with respect to college entrance prerequisites, subjects required of all pupils, and elective fields.

languages many high schools have found it advantageous to offer a language, usually Spanish, on a college preparatory basis and also on a speaking and understanding basis only, the latter course being distinguished from the former by bearing the title, "Conversational Spanish."

Required Subjects

A different problem exists, however, in those subjects which are required of all pupils and particularly where pupils are assigned to classes on a heterogeneous basis—that is, where different classes are not available for pupils with different abilities. Again, as a specific example, let us consider John and Mary who find themselves in the same ninth-grade English class. Upon entrance, John's eighth-grade examination scores show that he had attained an ability equivalent to that of the average twelfth-grader in all English skills. Reading, spelling, grammar, handwriting, vocabulary are all uniformly high. His post-high school goal is an academic college or university.

Mary, on the other hand, had been considered for the elementary school's mentally retarded class, but the final decision kept her in the regular sections. Her eighth-grade examination results place her reading ability equivalent to the average fourth-grader and her other English skills are at about the same level.

At the close of the first semester or of the year, is the work of these two pupils to be evaluated in competition with each other? If so, there will be little need of making the evaluation; any one who saw the eighth-grade examination results can tell you that Mary will receive one of the lowest

marks, and that John will receive one of the highest.

Mary may have tried harder than she ever had and may have made considerable improvement, whereas John may have put forth a rather minimum effort; but by comparison, his achievement scale places him at or very near the top of the class. Is such a marking system an appraisal of the work of these two pupils in the ninth-grade English class? Obviously not.

Where classification practices force pupils of such diverse abilities into the same class, the answer to the evaluation question must be in favor of the consideration of each pupil's ability and growth. Mary deserves recognition and encouragement for her progress, and John requires stimulation to put forth maximum effort. True, these can be accomplished in other ways, but Mary's and John's parents will judge by the report card.

Individual Solutions

What should the marks have been? The question must be answered by each individual school, for marks should not create misunderstandings. Mary might well be given whatever mark is used at the higher end of the scale with proper safeguards against misunderstanding of the meaning of the mark by her, by her parents, or by an institution to which a transcript might be sent. The inclusion of standardized achievement test results on the transcript would be an appropriate safeguard. Other high schools and higher institutions would welcome such information.

This argument would apply also if a school utilized some form of homogeneous grouping and Mary were

placed in an English class made up of pupils of fairly similar ability or accomplishment. Such a class should be allowed the full range of marks allowed in classes of greater ability. Otherwise, pupils in such a section would be automatically prohibited from earning the higher marks and would receive no encouragement from the school's evaluation and marking system.

Encourage Maximum Effort

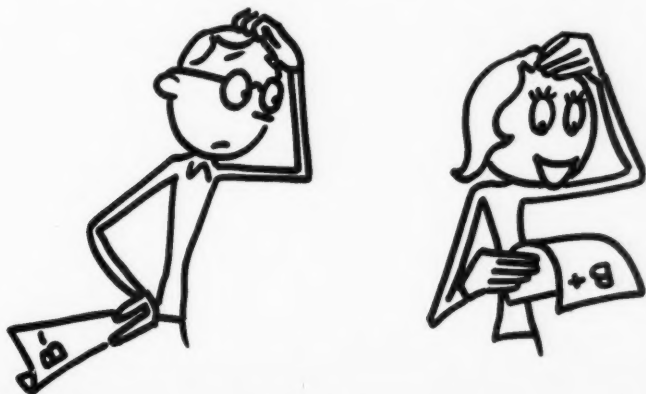
The same reasoning seems appropriate in all areas of required subjects—that is, evaluation should consider individual ability, effort, and progress achieved during enrollment in the course, instead of being based entirely or even largely on an absolute measure of accomplishment at the close of the course.

Basically, in the area of required subjects, the answer to the question is the same for high schools as it is for elementary schools. The school must decide whether it is more important for its appraisal plan to tack a label of exact accomplishment on each child, continuously discouraging those of low academic ability, and perhaps not stimulating those of high ability; or whether it is more important to use its appraisal plan to encourage maximum effort and accomplishment from each pupil, accepting the fact of varying individual capacities. More and more, the elementary schools are choosing the latter course, and this seems sound for required subjects at the high school level.

This does not mean that competition is removed but simply that unfair competition is kept at a minimum. Competition should be between two persons sufficiently alike in qualifications to give real competition. Will either John or Mary profit by "competing" with each other? If the cards are stacked 100 percent against a participant there is no competition in any real sense. This type of "competition" undoubtedly is part of the explanation of why high schools continue to graduate only 40 to 80 percent of the eligible age group.

Elective Fields

Elective courses other than college entrance subjects comprise a very large and varied part of the high school offerings. Included would be courses in the commercial field, in the fields of industrial arts, vocational



education, arts and crafts, music, homemaking, science and other academic fields. These courses do not fall under one appraisal plan or the other as clearly as do the first two classifications discussed. Achievement in many of these electives is rather specialized and individuals who find accomplishment very difficult in one field may achieve success more readily in others.

Specialized Skills

Many of the subjects are designed to develop specialized skills. Consider typewriting, for example. There would seem to be little justification for considering varying individual capacities when evaluating accomplishment in such a skill. The appraisal itself will be based entirely on the speed, accuracy, and amount and quality of work accomplished by each individual at the close of a specified length of study. Whether the skill is being learned for vocational or for personal use will affect the course of study somewhat, but need affect the measurement of accomplishment very little. The same applies to other specialized commercial courses such as shorthand and bookkeeping, and to vocational subjects in other fields.

Consider as a second and different type of example, courses in the field of music. Here skill, understanding and appreciation are being developed. While measurement of achievement might be largely on the basis of absolute accomplishment, consideration might well be given, also, to the amount of growth made by any one pupil. A relatively high mark might be justified on the basis of growth shown, even though final accomplishment were not at an artist's level of production.

Many of the elective subjects are similar to this example. Arts and crafts, industrial arts, homemaking, and even non-college preparatory academic courses might well consider growth made, together with absolute accomplishment. Particularly would this be true if a subject classified as an elective were in actuality a requirement for certain pupils.

Pupils may be forced to enroll in some courses, say in a science course at the sophomore level, because they must offer at least one science course for graduation, or simply because no other course is available for them. Industrial arts and homemaking

courses sometimes fall in this classification.

If it were assumed that there are available sufficiently varied courses suited to the proper development of all types of individuals at all levels of ability, individual capacities would not need to be considered. Under such provisions, individuals would be competing with others of fairly comparable qualifications. Even then the appraisal plan would be fair only if the entire range of marks was allowed in each class. Few if any high schools, however, have attained such a range of course offerings as yet, and some consideration of varying individual capacities is necessary in the elective courses presently available.

Summary

In summary, the proposals on grading high school pupils' work are:

In elective college preparatory subjects, where alternate courses are offered for non-college preparatory pupils, evaluation should be made largely on an absolute scale with little consideration of varying individual capacities.

In courses required of all pupils, evaluation should consider the capabilities of the individual pupils, and a program should be undertaken to prevent misunderstandings of such marks.

In the case of electives, other than college preparatory, the plan should be adapted to the particular course. In purely skill subjects and in vocational courses, there is probably little need to consider varying individual capacities. For evaluation purposes, such courses would fall in the same classification as elective college preparatory subjects, with an absolute standard of accomplishment. But in other electives, consideration might well be given to the varying capacities of the individuals enrolled. For evaluation purposes, these courses would be classified in the same group as the required courses.

Thus, high school courses in any one school could be divided into two groups; those that will be evaluated and marked on an absolute scale, and those where varying individual capacities will be considered. Such a division, arrived at by the staff of the school, would help in the clarification and further study of the problem and, in reaching a more reasonable solution than now prevails.

FOR the past year the work of the school administrator has had, and will over the next few years continue to have, the most careful scrutiny.

Many of us have already been alerted by experience to the gaps in our training. Three major areas for which superintendents could be trained and for which adequate training has been neither required nor properly provided are, in order of ascending importance: public speaking; selection of personnel; techniques for working with groups.

Public Speaking

All of us who are heads of schools or school systems know that we are often required to speak in public. The types of speeches required fall into different categories, such as:

Explanatory talks—The new report card, the school budget.

Selling talks—Why vote in school elections; the need for new school facilities; the use of new techniques in social studies.

Inspirational talks—To teachers; to students; to Rotary, Lions, Kiwanis, PTA and church groups.

Short speeches—"A few remarks"—Introducing speakers; the casual comment at the high school assembly.

Any experienced superintendent could enlarge upon this list. Certainly public speaking is one chore of the school administrator. It does not matter that such activities take but a small amount of the total time spent in our work. The importance of the impression made by the superintendent in these frequent or even infrequent public appearances cannot be related to the time consumed.

Public speaking is a very simple skill, and can be taught. It is a skill

Training Superintendents

every administrator is required to use, but not required to learn.

Selection of Personnel

In the past year, in a school system of 65 employees, I have been required to select, to help in the selection of, or to pass final decision on the personality and qualifications of fifteen people. Based upon Glen Rock's salary schedule, which is not at all high for a metropolitan area, these people could represent an investment of over \$2,000,000 of the money which the town will raise in future taxes, should they remain until they retire from their respective positions. Much more important, these people, as school custodians, teachers or principals, will spend five hours a day, 185 days a year, with some 17,000 children before their work is completed. The impact of these people on the lives of future citizens cannot be calculated.

It was quite a responsible job that I took on this past year—a task that I was trained to do only by accident and not by design. In the great number of hours of college preparation which culminated in a doctorate, not one hour was spent in learning how to select people. On no occasion was I ever instructed in the simplest procedures of interviewing.

There is no superintendent who does not have this heavy responsibility. In the larger system he may delegate it or may routinize it through teacher tests, screening committees and other means. In the smaller system he may find that the board of education or a teachers committee of the board will assume a part of the responsibility. In the final analysis, however, the superintendent is held responsible for the success or failure of

KENNETH G. COULTER

Supervising Principal
Glen Rock Public Schools
Glen Rock, New Jersey

the people who work with him.

It seems obvious that training for this phase of the work is needed. That such training could be secured is evidenced in the personnel department of any large industry. The graduating classes of teachers colleges would offer themselves as willing subjects for training interviews. There must be ways and means of learning how to dig through the superficial personality often put on by the interviewee to the real person beneath. There is no intention here of disparaging the various hints, helps and interview sheets that have been developed. I would suggest that as we learn by doing, we could learn to interview by interviewing.

Working with Groups

One thing that has become apparent to the school administrator in the present age is that good decisions are made by groups, are arrived at by interaction between persons. The search for all sorts of solutions to all kinds of problems is carried on by groups. The Citizens Committees for Public Schools which are springing up all over the country are a striking example of this. Superintendents sit with these and other groups and may be their effective leaders (in many cases they must be the effective leader rather than the person in titular leadership): for example, boards of education, PTA groups, principals' meetings, teacher groups, committees of all sorts. As we develop a really effective democratic school administration, our ability as group leaders

and group members will become a vital requisite.

Many persons have had a great deal of instruction in this particular area. This instruction, it may be assumed, was not a part of graduate course 302-A, three hours, spring session. Rather, the learning was acquired as these people studied methods of teaching. Others may say, "My training in this area was secured in the seminars in which I participated while doing my graduate work." I have sat with brilliant men under outstanding teachers in some really exciting seminars. I cannot recall that any these excellent instructors ever said to us: "As school administrators you will be constantly confronted with the necessity of securing support for projects or decisions leading to action. Let us evaluate what we do this semester in terms of how our group and individuals in it work together toward a common purpose."

The instructor who reads this might say, "Coulter, how can you be so stupid? We expect these seminars to teach techniques for working with groups." Might I suggest that geometry can be so taught that it gives the student a course in "How to Think" as well? But the objective of teaching people to think must be uppermost in the mind of the teacher and the learner. The laws of learning apply equally to the graduate student and to the high school pupil. There is need for the learning of group work techniques. The opportunity to teach this skill is given to graduate school professors. It is not too often utilized.

School administrators are prone to talk of their duties as "social engineers." "The design for the future must be put into the proper frame of reference," they say. "The impact of our disintegrating civilization must be absorbed by community instruction in the realities of democracy."

Not one of us will minimize the importance of our "extracurricular" responsibilities in addition to the intelligent administration of the day-to-day work of the schools. However, we must be able to interpret the deepest wishes of the public to the public through the spoken word. We must know how to select the personnel who will teach and train the children. We must know, much better than we do now, the techniques for working with the groups who employ us, the people we employ, and our colleagues.

Baltimore County Schoolchildren of Yesteryear Say:

"They've Thrown a Little More

THE problem of adequate classroom lighting is not a new one and past school generations have tried to solve it with the facilities and know-how available at the time. However, in recent years, heavy demands for new school buildings to house vast enrollment increases have focused renewed attention on the importance of adequate classroom lighting as a sight conservation measure while at the same time producing optimum student learning.

Baltimore County, like many other communities, has been kept busy during the postwar years with the task of providing new schools, but at the same time, has tried to create facilities conducive to good health and learning. Pressure to do otherwise in the interest of speeding construction has been great at times but so far has been successfully resisted.

Second in population in Maryland to Baltimore City, and surrounding it on three sides with the Chesapeake Bay serving as the fourth boundary, Baltimore County is a combined residential-industrial-farm area of some 607 square miles with a county-unit public school system serving some 43,000 pupils. This close proximity to the nation's sixth largest city has been largely responsible for a ten-year Baltimore County population gain of more than 113,500 persons. This huge population increase—

greater than Baltimore City's gain during the same period by some 30,825 residents—has produced both internal and external repercussions.

By Leaps and Bounds

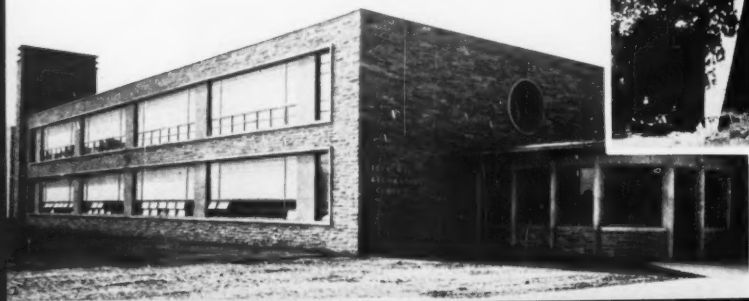
In the first place, the public school system has had tremendous growth. During the past five years alone, nineteen new schools and additions have been erected providing classroom space for more than 11,000 pupils. Referred to locally as the "Second City," the growing Baltimore County metropolitan areas surrounding the city are pushing the "little red schoolhouse" frontier further and further into outlying rural areas. However, it was not until 1949 that the last Baltimore County one-room school closed its doors, ending an era

JAMES A. SENSENBAUGH
Assistant Superintendent of Schools
Baltimore County, Maryland

dating back to the beginning of the state public school system. Though it is true that several county two-room schools are still in operation, this is a far cry from the more than 100 small units in existence during the days following the close of World War I.

It is not without some regret that we watch the "little red schoolhouse" fade from the Baltimore County scene. Most middle-aged citizens like to remember the one- or two-room country school as the scene of pleasant youthful experiences. But one fact is certain—today's well-lighted classrooms are aiding considerably

Typical picturesque Baltimore County "little red schoolhouse" (right) long since abandoned under rural school consolidation program. Its entrance has no windows and natural light is blocked from its two classrooms by overhanging foliage. Below, the first new elementary school completed in Baltimore County's postwar school building program.



Light on the Subject"

in the fight to reduce sight defects among our youth, nearly one-fourth of whom have some type of visual difficulty when they become of age. Also, because some 80 percent of a child's learning comes by way of visual experiences, the improved environmental conditions tend to produce better learning.

Baltimore County is today conducting what may be termed a two-pronged assault on some of the factors leading to student visual difficulties. In addition to these preventive efforts, a remedial program is being conducted for pupils handicapped because of poor eyesight. Summarized, these efforts include the utilization of sight conservation features in the de-

sign, finish, and equipment of new school buildings; modernization of lighting systems in old existing school buildings; special instruction for children handicapped by poor vision.

Use of Natural Light

The nineteen new schools and additions erected during the past five years in Baltimore County, seven new schools and one addition now under construction and others in the planning stage have all been designed with a view to the fullest possible use of natural light in classroom interiors without harmful glare.

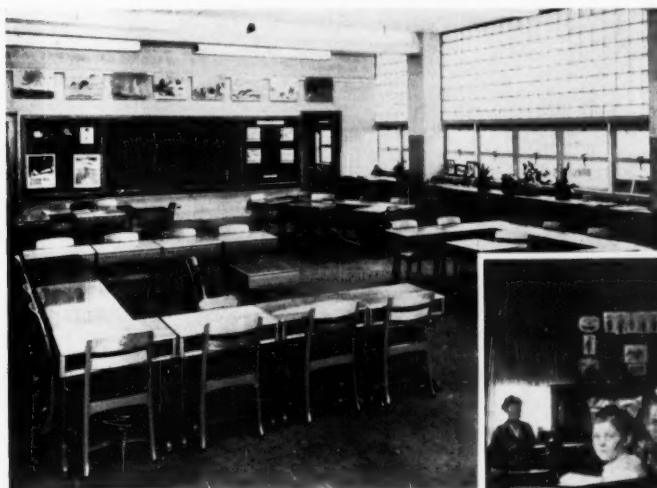
One of the most widely used methods employed to produce this result is

the use of glass blocks above window areas that direct incoming light ceilingward to be reflected to the desks from above, thereby eliminating eye-damaging glare. In other instances, these light-directing blocks serve to guide natural light to corridors and other interior locations, thus reducing the need for artificial illumination.

One of the new elementary schools and another under construction utilize bilateral lighting to insure adequate natural classroom lighting. These buildings are designed to permit natural light to enter a classroom from two opposing sides of a classroom. In every case, when natural light must be supplemented on cloudy days, or due to room location, approved non-glare fixtures—usually fluorescent—are provided to give adequate illumination.

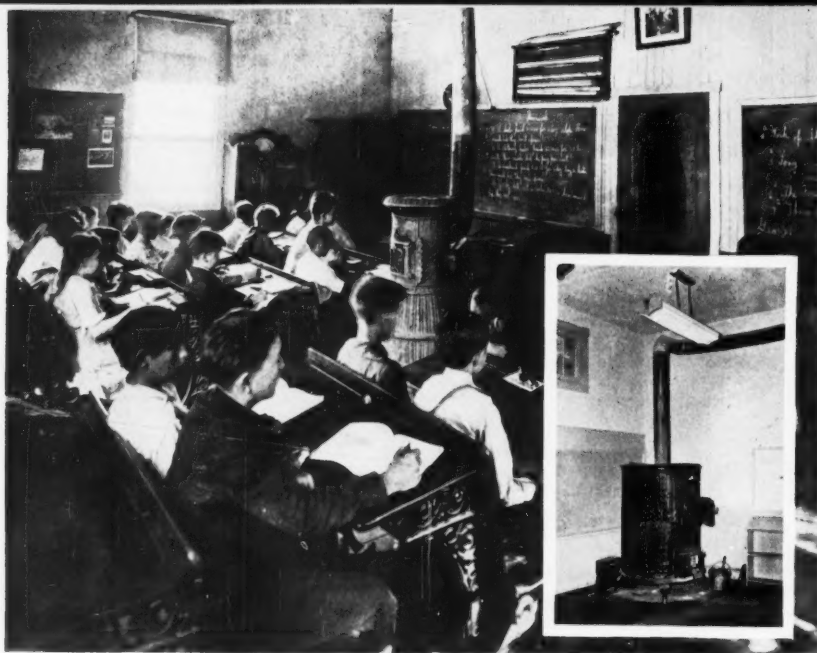
Refreshing Color Schemes

Another very effective feature of modern school buildings employed to reduce eye-damaging glare are the eye-pleasing pastel color schemes used in classroom interiors. Without delving into the merits of color psychology, almost everyone will agree



Compare gloomy, dimly-lit classroom of post-World War I days (right) with new postwar Baltimore County classroom (above), designed to make full use of natural light, supplemented with fluorescent illumination.





Baltimore County's lighting modernization program has brought more light even to the old classrooms still in use, like the one at left, photographed 25 years ago. Modern fluorescent fixture shown in inset.

that a pleasant classroom atmosphere as contrasted to dull, drab interiors is very desirable. It is also undoubtedly true that a bright and cheery classroom is an added incentive to teachers and pupils alike to make the most of the school day. But this is not the whole story. Today's new Baltimore County classrooms are primarily color-designed to reduce eye-damaging glare and eliminate the dark recesses so often found in the old conventional classroom.

Rounding out the picture in the first phase of Baltimore County's assault on factors leading to pupil visual difficulties is the selection of classroom equipment. Gone is the traditional "blackboard" from many schools. It has been replaced with chalkboards of an eye-pleasing and restful green. New desks are finished in light, natural, non-gloss shades to give maximum light with a minimum of glare. The new modern classroom interiors have the child in mind. Health factors stand equal with teaching factors in the design, finish, and equipping of today's new Baltimore County classrooms.

Modernizing Old Schools

The second phase is a county-wide program of modernizing lighting of old existing schools. Now about 60 percent complete, the program was initiated in 1947 following a survey by lighting experts. Of 59 county

schools held in need of fixture replacement or additions, 29 schools have been completely modernized while another eight are partially completed.

Of first importance was the elimination of one-fixture classrooms. Directed by the school construction engineer, actual work in the continuing program is usually done during the vacation months. Surveys and plan preparation proceed on a year-around basis. The beneficial effects of this sight conservation measure have been attested to many times by parents, teachers, and pupils. Former Baltimore County students can truthfully say, "They've thrown a little more light on the subject" and add: "even at the old school I attended."

Remedial Service

Educators have long realized that many visually handicapped children, though known to be "teachable," cannot become adjusted to the normal classroom pace without special instruction. It was with this thought in mind that members of the board of education created in 1950 a special sight conservation center in one of the county elementary schools. The first of its kind in any of Maryland's twenty-three counties, the new remedial class under the direction of a specially trained teacher has been a distinct success. Special equipment,

much of which was donated by the Teachers Association of Baltimore County, includes: two-foot primers printed in type four inches high, phonographs, a radio, wire-recorder, large-type typewriters, easy-to-read maps and globes, and tilt-top desks.

The primary purpose of the instructional program is to equip visually-handicapped children with the fundamental tools of learning: reading, writing, spelling, and simple arithmetic, so that they may resume regular class studies using the techniques learned in the remedial class.

To compensate for the reduced effectiveness of eyesight as an avenue to learning, much emphasis in the special class is placed on the use of hearing as an aid to understanding. The effectiveness of this substitution was strikingly portrayed in the case of a nine-year-old child who was first taught to read after a year's special instruction. Another youngster advanced two and one-half grades in reading progress as the result of special training.

These are but a few of the beneficial outcomes illustrating the value of remedial instruction for visually-handicapped schoolchildren. However, probably more urgent is the prevention of environmentally-induced visual difficulties through long-range school sight conservation programs. Baltimore County is making some progress in that direction.

TODAY'S college bands are big enterprises, often surpassing in manpower and equipment the football teams they consort with. At the University of Michigan, which for many years has matched its crack football teams with equally talented marching bands, the musical corps numbers 120 men. In addition, the school has a 110-piece concert band for other musical occasions and a large varsity band that plays at basketball games and other events. A whole building, Harris Hall, is overcrowded with just the requirements of the band department.

This development of organized music is a predictable result of human nature and the nature of colleges. Since prehistoric times, stirring music has led men into battle with courage bolstered and spirits high. It is natural that as football has been elevated to the status of mortal combat for the school's honor, organized music should come along to inspire the stalwarts on the field and the rooters in the stands.

All colleges of any size have a goodly number of students who learned to play a horn, beat a drum or twirl a baton during their earlier school years. Quick to recognize the

rallying effect of music on the spirit of the students (and prosperous alumni who come to the games), the deans have encouraged the bands. More and more spirit at the games means more people in the stands, bigger stadiums, more publicity, more loyal alumni, more donations—and bigger budgets for botany and fine arts.

Other Musical Activities

This development of college bands is also recognition by educators of the integral place of music in education. For though the bands represent music in its most organized form, they almost invariably are accompanied by growth of other musical activities

RAYMOND SCHUESSLER
Buffalo, New York

like choruses, glee clubs, musical shows, song festivals and dance bands, as well as classes in music.

The recognition of music's importance in school life has permeated the high schools, where today there are an estimated 30,000 bands. Thirty years ago a high school band was a rarity. Now hundreds of elementary schools boast fine bands and orchestras, too, as part of a phenomenal expansion of musical training that begins in the kindergartens of up-to-date schools.

This early development of musical

Music in Schools



Practice session with Dr. William D. Revelli, band director at the University of Michigan.

skills makes competition for places in the college bands as keen as the fight for the right end position on the varsity grid squad. Besides having to be top-notch musically, the member of the football band must perform intricate marching maneuvers more complex than those of a crack drill squad while performing perfectly on his instrument and in exact time with the rest of the group—often after only one or two rehearsals! Finding 120 such paragons of coordination is a major task for the band director.

Rigorous Auditions

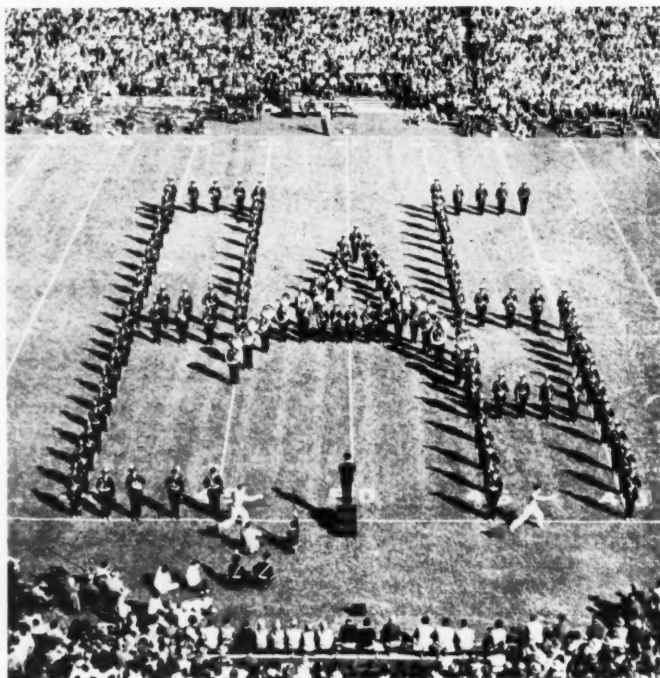
At Michigan, for instance, the prospective band member undergoes rigorous auditions with the faculty band committee and the band director, Dr. William D. Revelli. The better applicants are placed with the varsity band, which serves as a "feeder" group for the marching band and the concert band.

The top-notch high school musician often finds himself as much in demand as the star halfback. Although Michigan and other schools do not give band scholarships, many colleges do. Michigan and others do have scholarships in the School of Music that attract outstanding bassoonists, oboists and cornetists, most of whom naturally try out for the bands.

Band directors find it easier to get enough good trumpeters and saxophonists than tuba players and glockenspielers. They have been known to plead with a chemistry professor for leniency in grading the star flutist just before the big game.

The real story of the college band is the story of its members. The typical band member's story begins when he first comes under the guidance of his grade school music teacher.

With music now the most rapidly developing subject in American schools, the future trombonist who will inspire the All-American halfback to do better in the second half finds his introduction to music in pre-school classes. He begins in kindergarten with rote singing and rhythm bands, making music with tambourines, plastic wind instruments, marimbas and triangles. In higher grades he becomes familiar with the principles of music in a piano class, where the children take turns at one of two pianos while the rest follow the teacher's guidance at practice keyboards.



Photos by American Music Conference

The band moves into a precision formation between halves of the big game, with the crowd of 90,000 at Ann Arbor applauding the maneuvers.

In fourth or fifth grade he gets his introduction to the band instruments, and before he is out of elementary school he plays in a band or orchestra at assemblies and public affairs.

By the time he gets into high school, competition for positions in the band is really hot. With trips to out-of-town football and basketball games or to statewide band competitions as an attraction, the turnout for band trials often resembles the first day of football practice. Many high schools have junior and auxiliary bands to handle the overflow and to act as training units for the band.

So the musician who goes on to college today is a veteran competitor. When he reports for band tryouts, he has already survived several struggles for recognition. Musical organizations provide training in winning over competition but, like sports, they also instill a spirit of team play. For in the good band, every member must blend perfectly with all the others, and all follow the exacting direction of the leader.

The musical experience, in fact,

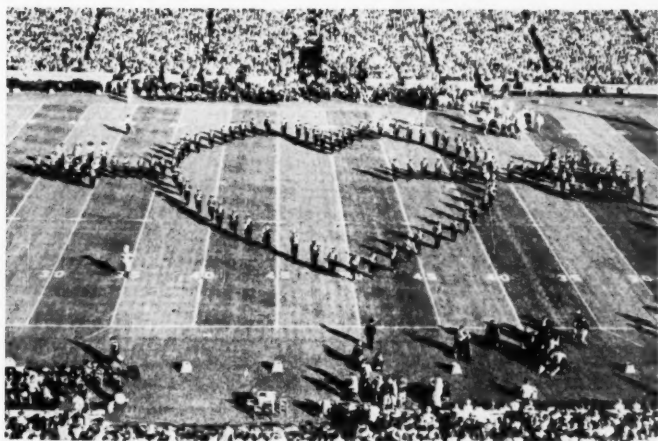
seems to have a marked influence on the development of the youngster's personality. As Dr. Revelli has noted, the young men and women who try out for the bands at Michigan are healthier, better developed, more mature, more popular and better students than their classmates.

Influence on Personality

"The experience they get in music," he says, "gives them many things besides the pleasure of playing an instrument. It definitely contributes to development of a rounded personality—by teaching cooperation, discipline, coordination and the importance of doing a good job, as well as providing the outlet for self-expression that is vital for everyone."

As examples, he points to a few members of the Michigan bands.

Even wartime service failed to interfere with the determination of Robert Sohn to be a member of the Michigan band. Though he lost four years between his freshman and sophomore years, he has gone on toward his master's degree and a spot as bass



Another crowd-thriller is this heart-shaped formation by the Michigan band.

clarinetist. He is married and works part time teaching, but there is no more enthusiastic booster of the grid team's morale between halves of the football games. Sohn started playing the clarinet in the fourth grade in his home town of Hobart, Indiana.

Robert Pfeuffer has a wife and a 22-months-old daughter to cheer him on when he crosses the yard markers for his alma mater. A band director's prize, a good bassoonist, he started his musical career in junior high school at Pontiac, Michigan. Besides a skill with his instrument that will stay with him long after the football players have become soft and paunchy, he acquired through his band activities a relationship that will brighten his life for many years—with his wife.

Opportunities for Girls

While Michigan's marching band is composed of men only—so that the crowd's whistles won't compete with the music—the girls find plenty of opportunities to display their musical talents. At many other colleges the girls are the feature attractions of the football bands, from the leggy and high-kicking drum majorette to the sweet young thing who beats powerfully on the bass drum.

Michigan's concert band, famous for its way with Sousa marches and other scores, is well populated with coeds, who more than hold their own with the men. Nineteen-year-old Nancy Lou Weitknecht, for instance, an honor student at Michigan, has many musical feathers in her cap. While still in high school, she was a

member of the WSAW (Allentown, Pennsylvania) Symphony Orchestra and the Lehigh Valley Symphony Orchestra. She was twice chosen the first flutist in Pennsylvania before she was 17.

In April, 1949, she was chosen by the New York Philharmonic Orchestra in a nation-wide competition and spent a week end in New York as guest of the orchestra. Her career began when, at the age of eight, she

looked over all the instruments and took a fancy to the flute. She is not in a rut, though—she also plays the piccolo.

Beverly Schubert, one of the most beautiful girls on the campus, is one of the top musicians, too. She waited until she was nine years old to take up the cornet, but by the time she was ten she was good enough to play with the high school band and a little later was a star soloist.

Most Popular Students

All the members of the bands prove that music is a wonderful asset at college. They are among the best adjusted, most successful and most popular students on the campus. And when they go to a Rose Bowl game, as the Michigan band did in December and January, 1947-48, they are the most envied, too.

But the moment that stirs their souls comes when the director raises his baton and they start playing *Hail to the Conquering Heroes* or their own alma mater in Cambridge or Berkeley or Evanston or Baton Rouge. For there's nothing like a band to stir the souls of a crowd—and there's nothing like being in a band for the thrill of being where things are happening.



Beauty and talent combined are represented by flutist Nancy Lou Weitknecht (left) and cornetist Beverly Schubert.

SCHOOL PLANT

News & Views

Recent Trends In School Building Design

In seeking to discover trends in school building design the Research Department of the American School Publishing Corporation recently made a study of approximately 1,400 school buildings constructed between 1930 and 1950. Data on the buildings were collected from the architects who designed them. The same architects were asked to express preferences concerning future buildings. The results of this study are summarized below.

1. While brick was the material most often used for exterior walls, the period from 1940 to 1950 saw a decline in the use of common brick. The use of cinder block and of face tile in exterior walls increased. The use of wood and concrete declined.

More than half of the architects recommended face brick for exterior walls of future school buildings.

2. It was revealed that the ratio of flat roofs to pitched roofs (4 to 1) remained almost constant over the twenty-year period under consideration. Almost all of the flat roofs were of either tar and gravel or asphalt composition. Asphalt was the roofing material most often used on pitched roofs during the twenty-year period. During the last half of that period the use of asbestos roofing increased markedly while the use of wood, slate, and tile declined.

Eighty percent of the architects responding expressed a preference for flat roofs on future school buildings. Sixty percent expressed a preference for flat tar and gravel roofs.

3. Just 20 percent of the buildings constructed between 1930 and 1940 were one-story structures. Another 10 percent had one story plus a basement. The remaining 70 percent were multi-storied with the two-story

Research Is the Answer

RESEARCH has become a household word in America during the past ten or fifteen years. The field of school plant planning can benefit from research conducted as a joint effort by architects and educators. We are aware that much has been done in the field of engineering and scientific research in such areas as lighting, heating and ventilating. Is it not possible and highly desirable that research could be carried also into the fields of human relationships and human values?

If we could take the laboratory into the classroom or convert a classroom into a laboratory, it is quite likely that we would discover many new facts about the reactions of people to environment, teaching methods and physical comfort, as well as the effect of light, sound and air conditioning upon the growing child. If we could bridge the gap between the research which has given us mechanical equipment and other modern physical elements and the research which has been carried on in education to produce better educational methods and procedures, we could combine the findings of both to bring us closer to the ultimate goal—a more effective school plant.

Jay C. Van Nuys, Architect
P. C. Van Nuys and Son

structure predominating. During the period from 1940 to 1950, 53 percent of the buildings constructed had only one story. Another 7 percent had one story plus a basement. The remaining 40 percent was made up almost entirely of two-story buildings.

Architects expressed an overwhelming preference for one-story elementary school buildings in the future. Only 38 percent of the architects expressed a similar preference concerning secondary school buildings. More than half of the men responding preferred secondary buildings of two or more stories.

4. On a percentage basis the fire resistant quality of these school buildings changed little during the twenty-year period under consideration. Only 2 percent more of the 1940 to 1950 buildings were entirely fire resistant.

For future buildings, 63 percent of the architects expressed the opinion that two-story building should be entirely fire resistant. Only 33 percent had the same belief concerning one-story buildings.

5. A definite trend toward contemporary design appears to have developed during the past ten years. Contemporary design was evident in 27 percent of the buildings constructed during the years between 1930 and 1940, and was evident in 70 percent of those constructed between 1940 and 1950.

Eighty-six percent of the architects responding to the inquiry expressed a preference for contemporary design.

San Francisco Gets A New Community Center

A recent issue of the *Architectural Record* carries a picture of San Francisco's Sunset Community Center on its front cover and contains a thirteen-page article with many illustrations of this outstanding example of cooperation in school and community planning.

A number of architects, engineers, and an educational consultant combined their thinking and planning with seven administrative agencies of the city government.

Reciprocals of a Technical Assistance Program

WALLACE H. STREVELL*

Chairman, Department of Education Administration
College of Education, University of Houston
Texas

THE FUTURE direction of teacher education in the United States will be profoundly influenced by changes that are impending in the graduate schools within the next decade or so. The recent trend toward five years of education for teachers, especially high school teachers, is producing a mass movement toward the master's degree.

Military service, a new element injected into the careers of young teacher trainees, has reinforced, and as is now evident, will continue to reinforce the large-scale demand for professional studies at the graduate level. Colleges both large and small are considering the wisdom of adding the doctor's degree as well as the master's degree to their graduate programs in teacher education. Decisions pivot upon the issue of whether a given experience situation makes an individual a better teacher and educational leader.

In this period of adjustment, the technical assistance program promises unusual advantages as a major field of graduate activity. Technical assistance may be described in general as the relationships of a teachers college to an area of public schools on the basis of service. The methods of technical assistance, such as institutes, workshops, seminars, expert advisement, surveys, in-service projects, study councils and the like, are passing beyond the experimental stage.

Unlimited Possibilities

There is probably no limit to the amount of technical assistance that the public schools can consume, provided demands upon the time and energy of local teaching staffs are held at a reasonable level. Conversely, the teachers colleges have only begun to realize the educational benefits their students can gain from taking their

programs into the field. Actual service contacts between teacher education institutions and the surrounding field of public schools are remarkably few. The expanding graduate program impels a greater realization of the reciprocal values of the technical assistance program.

It has been said that there are three phases in the college preparation of a teacher. A teacher must himself be an educated person. A teacher should be informed about the arts of the teaching process. And a teacher must inevitably complete a period of guided apprenticeship commonly designated as a probation period, or practice teaching, or internship.

Fourth Step

The mature graduate student, who often is a returned service man taking a serious outlook upon his professional career, is ready, however, for a fourth step. He should grow to understand that there is more to education than acting as a channel for institutionalized learning. He requires experience in thinking freely and democratically about what to teach, and when, where, who, and why. By participating in the practical affairs of his chosen vocation through a technical assistance program, the graduate student discovers he has a useful contribution to make.

The program of technical assistance between the graduate school of a teachers college and its neighboring public schools calls forth a maximum of creative effort. Technical assistance must above all else be constructive and helpful to the public

schools. Herein lies its significance for public education.

Basic Principles

Accordingly, several of the basic principles for a technical assistance program may be stated:

Technical assistance is purposefully directed and establishes patterns. Technical assistance manifests a resolute, concerted effort and constructive purpose to translate accepted ideals such as democracy, competence, citizenship, human rights, etc., into the teaching situation of the public schools. The research inquiries undertaken by graduate students acquire a design and theme, as opposed to the chance selection of problems for inquiry which formerly occurred when there was no realistic situation in view. A technical assistance program is consciously in the vanguard, identifying issues and organizing the efforts of research workers into purposeful patterns. As the experience records of related technical assistance projects accrue, a growing body of scientific knowledge emerges. The practical objectives help the research workers to coordinate their efforts.

A number of devices based upon cooperative planning are employed to establish patterns. Sometimes a formal organization of public schools is the medium through which a graduate school renders technical assistance. Patterns also can be established informally but effectively within a given school system, or among a small, informal group of schools having a common need and interest, or among several schools in a chosen cross-sectional field, or simply through

* Formerly consultant, State of New York Commission on School Buildings, New York City.

miscellaneous seminar and workshop contacts. No matter how varied the process may be, it is by deliberate intent that the establishment of patterns becomes a major contribution of the technical assistance program.

Broad Participation

Broad participation results in a resolution of values contributed from many backgrounds. Education research is subject to justifiable criticism if the worker retires into his personal code of values and pursues his subject as an end in itself.

The technical assistance program overcomes this difficulty at the outset by creating the conditions for committee action. Public participation introduces the opinions and interests of non-professional persons. All members of the teaching profession are encouraged to contribute their experience. Theoretical ideas generated in the academic halls of the university are put to an early test when they come into contact with these heterogeneous groups. Research is called upon to justify both its purposes and its results.

Broad participation, therefore, has the characteristic of constantly redirecting educational research in terms of human values. It also has important by-products, bringing together the experienced and the inexperienced workers, and lifting the vision of the community.

Pilot Studies

Technical assistance establishes pilot studies by which scientific knowledge is evaluated. The worker may construct an elaborate array of statistical and narrative observations and draw his tentative conclusions on any given problem, without knowing what the facts actually mean. Indeed, such general conclusions may prove to be quite inconsequential in dealing with a particular, local situation. For example, state-wide statistics alone have slight significance in measuring the need for school building which is locally determined. Pilot studies, however, which take into account all the local factors over a period of time, give interpretation to wider scale information. Experience gained from pilot studies often prevents misleading or harmful conclusions which might otherwise be publicized.

The pilot study approach puts a

premium upon the invention of ways and means. Each pilot study is conducted under different circumstances and has an explicit purpose. The potentialities of multiplying pilot studies over a technical assistance area are virtually boundless. Yet each can make its contribution to scientific knowledge and understanding.

Conservation and Economy

Technical assistance results in conservation of skill and economy of effort. When the public school official turns to the teachers college staff for help with a practical problem, he has in mind the lifetime experience and expert judgment of the individual professor. This personal leadership is the mainspring of the technical assistance program. However, by utilizing the energies of the graduate students, there results an organization of a few experts and many intelligent, constructive technicians.

Technical assistance conserves these energies by channeling them into useful, creative projects. Technical assistance also has special advantages for recruiting, screening, and developing competent personnel. The challenge of practical, worth-while tasks is a dynamic test of the personality and judgment of teacher candidates, or of in-service trainees. It tends to draw to the forefront those individuals who possess marked initiative and imagination.

Improved Techniques

Technical assistance builds agencies to evaluate, exchange and diffuse educational methods. Improved techniques for the discovery, gradation, and publication of advanced educational practices have recently appeared in certain of the teachers college projects. These techniques suggest interesting opportunities to utilize the talents of graduate students. The techniques are administered cooperatively by the colleges and the public schools. Essentially they supplement the traditional theoretic approach to methodology with pragmatic analysis. One of the challenges of the technical assistance program is to develop ways and means whereby large numbers of graduate students, according to their individual capacities, can contribute to this admittedly broad and cooperative endeavor. They may assist in constructing and applying evaluative

instruments, editing materials for publication, analyzing and observing on-the-job school practices, and the like, provided an adequate method of supervision is observed.

Thus, by surveys and conferences, by organized research and evaluative instruments, by sharpened editorial policies, and by many other constructive measures, the graduate school ranks as a leading agency to place the stamp of recognition upon educational practices that are patently ingenious and superior. Public schools may increasingly look to the graduate school of teachers colleges for guidance and assistance as the technical aspects of this movement gather impetus.

Adequate Finance

Technical assistance requires adequate finance. For many years the research work of graduate students has operated on a financial shoestring, aided only from time to time by meager fellowships or grants from foundations. If technical assistance is to achieve its production potential, a definite fiscal policy will have to be adopted. The core of the program is the staff of experienced specialists at the college, and they presumably will be carried on the regular college payroll. The remaining costs should be realistically budgeted.

School systems alone can seldom conduct a full scale research program, but by pooling their resources under a technical assistance policy they cooperatively may have as strong a department of research as any large industry. Therefore, it is logical to suggest that the public school boards, as beneficiaries of the research program, should contribute financially to its support. Whether professors and graduate students ought to receive direct compensation for their contributions is in some respects a moot issue of institutional management; yet on the whole it would be sound policy to give honest payment for value rendered. The technical assistance program affords an opportunity for cooperative purchase of valuable research services. As an investment, it will more than repay itself by insuring better value from public school methods.

Coordination, if properly constituted, will give wider interpretation to the scientific findings of a technical assistance program.

Educational Planning



Perkins and Will, Architects; photo by Hedrich-Blessing Studio, Chicago
The school plant is the responsibility of many. Properly planned, designed, executed, operated and administered it can turn out healthy, happy, useful citizens.

School Building Practices and Problems

THE school plant is a vast operation. It has to be planned; it has to be designed; it has to be constructed; it has to be paid for; it has to be operated; it has to be maintained; it has to be used. The planning section this month brings together views and practices which should be of interest and help to many of those who have responsibilities for the school plant. Maybe when you have read what our authors have to say, you may want to report some of your practices. We will welcome receiving them.

"In planning the construction of a school plant, educational philosophy and praxis as well as



A well designed school building fulfills the requirements of function and beauty.

The Functional and Beautiful School Building

H. H. WAECHTER, A.I.A.

Associate Professor of Architecture
University of Oregon, Eugene

MUCH irrelevant and little beneficial discussion has centered about "styles," layouts, use of materials, building costs and choice of equipment in considering the fundamental issues of good school building design. But I shall confine myself to the defense of the premise that, in school building design everything that is functional is also beautiful.

In planning the construction of a school plant, educational philosophy and praxis as well as particular school needs have to be well analyzed and precisely stated in a detailed survey and school program. Then, the question becomes: how can this program be translated in terms of space where the child's school life can take place as anticipated? This is entirely dependent on the creative imagination of the designer, although this is not to say that the architect is the only person who is working with imagination. Indeed, creativeness is the great power which enables us to find common ground for understand-

ing. The architects' domain is to imagine the space with all its properties. Since architecture has but one basic means, proportion, the problem is clearly this: how can proportions be found and applied in a way that an architectural solution may be derived which is functional and beautiful at the same time?

Agreement on Definitions Needed

Obviously, an agreement on the definition of (a) proportion, (b) function, and (c) beauty must be reached. The designer who gives form to the building's elements is constantly dividing them up, relating the parts to each other, and shaping them to fit his imagination of how the space should be used, constructed and made emotionally valid. Furthermore, the designer has to consider proper relationship of his design to costs and all the given outside factors such as climate, topography, materials and skills available, civic environment, etc. In school build-

particular school needs have to be well analyzed and precisely stated in a detailed survey"

ing design the matter of proportion is particularly critical when considering the physical longevity of the building in relation to the esthetic one. Neither should outlive the other.

The question of how the space should be created and used is usually considered a matter of function. The engineering and functional requirements are familiar to all. Most of them pertain to structural, physiological and biological requirements. It is obvious, however, that all those very important requirements have given the idea of functionalism a rather utilitarian and syllogistic limitation, which can be understood only from the fact that they had been neglected too long. As far as planning according to educational needs is concerned, very little functional progress has been made to express the possibilities of the more advanced educational ideas which are found in school curriculums.

Function vs. Beauty

The seemingly inconclusive struggle between "function" and "beauty" has been and still is a painful experience. It is agreed that serving the developmental needs of our children is paramount. This job has been understood by some as providing for practical schools instead of pretty ones. Others, who have been taught traditional values, think perhaps in terms of a building which has stylistic, decorative, dramatic, or monumental characteristics. However, art is neither something to be added to the useful if you think it pretty, nor something to be left out if you are truly concerned with the welfare of our children.

Both notions represent serious fallacies. We need creative imagination to design good school buildings. Children are sensitive to architectural needs and their scale has decisive influence on proper design. Most of the

functions in a building contribute to the expression of it, a fact which must be not only acknowledged, but also used to esthetic advantage. Since school budgets call for getting the most for the dollar, the designer has to seek new ways of expression and be ever more ingenious.

Teachers Must Be Considered

Teachers need an architectural environment which has a favorable emotional effect on them. Therefore, it is clear that as much as we need practical school buildings, we also need beautiful ones. The utilitarian-minded should realize that the artistic qualities of school design are psychologically necessary for children, teachers and parents alike. Those who demand artistic values should be told that real functionalism does not cheat them out of esthetic values. They will not have a pretty, a monumental, or a modernistic building. They will have a beautiful school, designed according to the best contemporary knowledge by the most imaginative architect the school board can find.

Much could be added about functional relationships between inside and outside space, and between site and town plan. Many new avenues could be opened towards the enjoyment of environment as functional requirements for schools. School building design starts with town and regional planning. It would be functional and good business to apply creative design from the regional plan straight down to the last building detail.

School administrators and all others concerned with school buildings should be interested in a good modern building that is also good architecture, not in styles, old or new. Let us broaden our view and interpretation of functionalism. Let our children have the benefit of the best which creative imagination can give with whatever means parents are willing to provide.



Children are sensitive to architectural needs and their scale has decisive influence on design.

"Through cooperative planning by schoolpeople, lay citizens and architects, an informed community

Pittsfield's New Schools

EDWARD J. RUSSELL
Superintendent of Schools
Pittsfield, Massachusetts

and

S. W. HAYNES, Architect
Fitchburg, Massachusetts

ALMOST three years ago the city of Pittsfield, Massachusetts, often called the most beautiful industrial city in America, began seriously viewing its school building problems against a setting as varied as the city's own background.

Among the sometimes conflicting claims calling for reconciliation in the minds of the members of this city of 53,000 people were these: (1) the irrefragable need for economy; (2) the technologist's demand for functional utility, stemming perhaps from the high level of industrial skill of Pittsfield's people; (3) the esthetic desire to provide for the children a healthful and pleasant environment; and finally (4) the enlightened impulse to create a schoolhouse that will say welcome to a modern educational program.

Out of more than a year of discussion and meetings by the entire school personnel; from added months of conference by a lay School Building Commission representing varied interests; through cooperative planning by both schoolpeople and Commission members with the architect and his associates; from these productive workshops in human relations emerged the plans for three buildings which an informed community at once accepted as an authentic synthesis of its hopes and dreams.

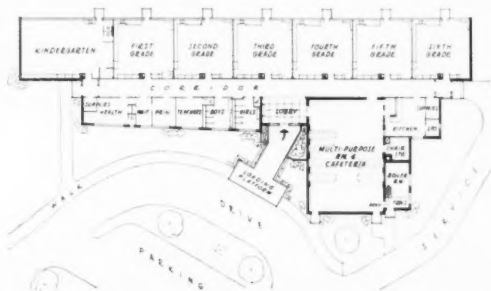
The buildings, begun in July, 1950, and completed sufficiently for occupancy in September, 1951, were true to their first promise. A large proportion of the city's population viewed them at open-house ceremonies in October and were so impressed that they were eager to modernize the older school buildings along the same patterns.

Each of the three buildings is of one-story design in

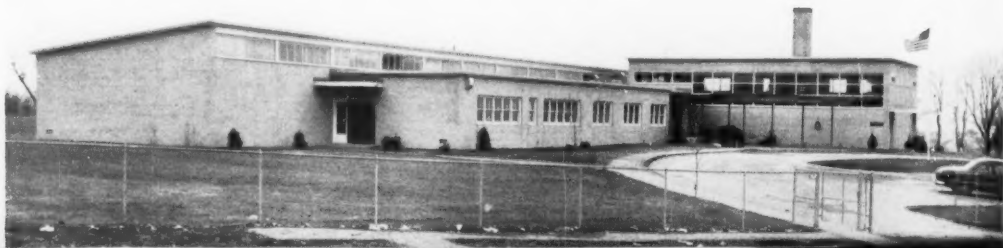
the interests of economy, safety and simplicity of school living. The Allendale and Highland Schools have no basement rooms and only a few service rooms are in the Egremont School basement. The buildings are of cinder-block construction with exterior brick facing. The roofs are relatively flat except for a saw-tooth design.

Classroom Is Basic Unit

The basic unit of each school is a relatively large classroom, with an area of 1,024 square feet. The urge for economy could not stand up against the larger space requirements of rooms which house more informal and active learning experiences. If windows had been located exclusively in one wall, the building code would have called for a width of not more than 23 feet, and a resulting length of more than 44 feet. To avert this extremely unwieldy shape (with a length almost double the width), a square room was adopted, 32 feet on each side. Provision was then made for introducing daylight through a saw-tooth skylight (or clerestory) about 22



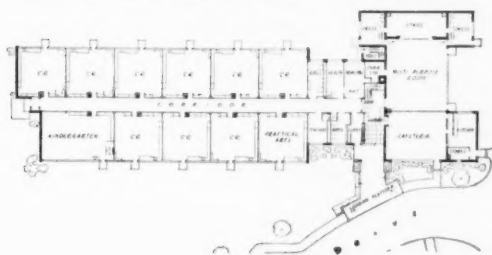
Highland Elementary School and floor plan



can achieve an authentic synthesis of its hopes and plans for a good school plant for its children"



Egremont Elementary School and floor plan



feet from the windows. The added daylight admitted through this semivertical skylight enables the far side of the room to be as well illuminated as areas near the windows.

The schools are amply supplied with glass; in fact, the window side is practically a wall of glass, oriented toward the east or west. Adequate brightness control is secured by venetian blinds. Because this design complicates the problem of darkening the rooms for motion pictures and other types of visual aids, every room has been completely equipped with darkening shades for every glass area. Each room is fully wired for audio-visual aids and is connected to the school sound system. In the interests of flexibility and adaptability, there are very few built-in facilities in the classroom. Instead, storage cabinets, work counters, wardrobes, bookcases, workbenches and other equipment are movable and can be rearranged in an almost infinite number of ways.

Flexibility and Economy

To the advantage of flexibility in this scheme should be added the merit of economy. Movable single-pupil tables and chairs are provided, except in the kinder-

Allendale Elementary School and floor plan



garten were larger tables are in use. However, the pupil's desks can easily be arranged to form tables of many shapes for varied purposes, and can even be arranged in the traditional rows for the few classroom activities where such rows are advantageous.

Classroom floors are of asphalt tile of relatively high reflectivity. Paint has been applied directly to the cinder blocks in the classrooms, and the acoustical properties of these cinder-block walls are enhanced by acoustical tile ceilings. The color scheme of the walls and the brightness values of the floor and furniture are designed for visual comfort and increased efficiency in the tasks of the elementary classroom. Artificial illumination from fluorescent luminaires provides foot-candle values conforming to latest standards and brightness ratios well within recognized tolerances.

The Allendale School has a kindergarten, twelve classrooms and a practical arts room; the Egremont School has a kindergarten, nine classrooms and a practical arts room; the Highland School has a kindergarten and six classrooms. Each kindergarten and classroom has its own door opening directly on the school playground, not only to reduce needless travel within



"The esthetic desire for a pleasant school must often be reconciled with the need for economy"

the building and to create the atmosphere of freedom, but also to permit instant evacuation of the school in case of fire or disaster.

Each building contains a principal's office, waiting room, health room, teachers' room, supply room and boys' and girls' toilet rooms on the same level as the classrooms. Kindergarten and first-grade rooms are more self-contained than the others, having their own toilets. There are sinks in all the rooms.

Movable Partitions and Multi-Purpose Rooms

The Allendale and Egremont Schools have a 40-foot by 80-foot room which can be divided by a movable partition into a cafeteria (with adjoining kitchen) and a multi-purpose room suitable for both gymnasium and auditorium purposes. A stage, with adjoining dressing rooms suitable for dramatics or athletics, is located at one end of the multi-purpose room which is also provided with a lobby, checkroom and toilet facilities for adults. The Highland School has a 40-foot by 60-foot combination cafeteria and multi-purpose room, without a stage and checkroom but with an adjoining kitchen. Each building has been provided with a chair storage room for storing the folding chairs when the multi-purpose room is not being used as an auditorium.

Unit ventilators provide ventilation for the rooms and

heating is achieved through these units and through radiators recessed behind work counters. Heating and ventilation of separately zoned community-used facilities can be provided in the evening without disturbing normal night conditions in areas not used.

Corridors, although equipped with artificial luminaires, have ample natural light borrowed from adjoining classrooms through glass panels set into the corridor walls. They are pleasant and cheerful with asphalt tile floors, unglazed tile dadoes, painted cinder-block upper walls and acoustical tile ceilings.

Among the features evoking general community applause are the functional design of the buildings, in which layout and choice of materials derive from the needs of children rather than from ornamental considerations or monumental traditions; the healthful classroom environment, with a full complement of equipment so well stored and distributed as to provide a comfortable, spacious and educationally stimulating atmosphere; the service and additional sustaining facilities which even self-contained classrooms need to change rooms into a school; and finally, the economy of construction through appropriate design and choice of materials, reflected in a cost of approximately \$.60 per cubic foot, exclusive of site development and architectural fees.

Typical classroom activity area



Typical kindergarten corner

"Conceived at a town hall meeting, the gymnasium is a living example of democratic planning"



Sanford Plans and Acts

NEIL V. SULLIVAN
Superintendent of Schools
Sanford, Maine

IF citizens of Sanford, Maine, seem inordinately proud of their new gymnasium-auditorium, it is because there is scarcely a member of this community of 18,000 persons who has not had something to say or do about its coming into being.

A dream of the community since 1940, when a mid-winter fire razed the city's high school together with its only regulation basketball court, this recreation center is a highly-prized addition to the school's facilities.

From the time it was conceived at a town hall meeting, as a memorial to Sanford's war dead, it has been a living example of democratic planning.

Here, on a cold winter night in 1948, textile workers,

businessmen, doctors, lawyers and clergymen met with the city fathers to exchange views on the kind of gymnasium they wanted and how they were going to put over the drive to finance it.

Although the town is supported primarily by one factory—the Sanford-Goodall textile mill—the people were determined to carry the financial burden on their own shoulders. Alive with interest in their project, they got the "ball rolling" in a bond drive which was soon to go over the top, and the new gymnasium got under way.

Today, this magnificent new building, linked by an underground pass to the high school which was completed in 1942, not only offers schoolchildren the best modern

"The Sanford Memorial Gymnasium is the creation of a living monument to democracy, a community

facilities for sports, dramatics, and entertainment, but is available to all groups in the community "around the clock."

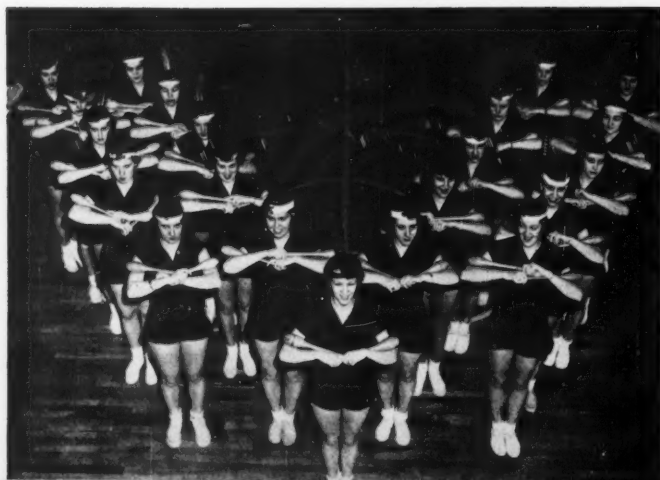
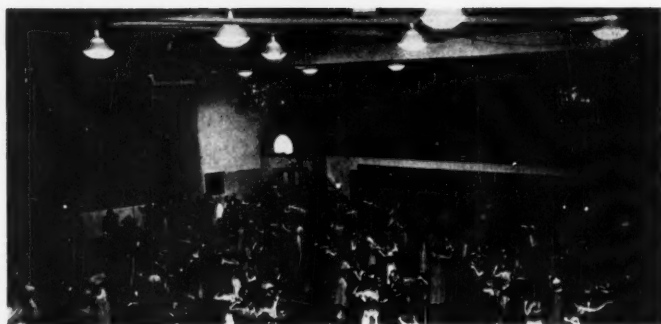
Here is a typical schedule of activities at the gymnasium: Sanford High School students use the building during the day for their regular gym classes and until

5:00 p.m. for team practice. From 5:00 p.m. until 8:00 p. m. the facilities are available to St. Ignatius High School; from 8:00 p. m. until 10:00 p.m. other town groups may use the gym; on Saturday mornings, public and parochial school girls and boys have activities in the building; and in the spring, after the two high schools



Band concerts and dramatic productions bring out the enthusiastic townspeople as much as basketball games, public dances and commercial exhibits.

Whether as sports arena or as ballroom, the gymnasium serves the students of the high schools and other members of the community.



A folding partition dividing the gymnasium down the middle makes it possible for girls' and boys' classes to be carried on simultaneously. At left, girls with feathers in hair practice with Indian clubs for an Indian dance learned in physical education class. On opposite page is an exterior view of the gymnasium giving some indication of its size.

home where young people and adults, alike, can come together for a happier, healthier community life"

conclude their basketball activities, the YMCA is invited to take over.

In addition, the gymnasium-auditorium is used by all local groups for musical and dramatic productions, for social and public dances, for food, home and other business shows, for all public events when a large audience is anticipated.

The Sanford School Committee, a citizens' group, is in charge of administering the activities of the building.

Next on the List—a Stadium

The high school and the new Memorial Gymnasium occupy a plot of land made available by the Park Commission. They stand at the entrance of a large tract of woodland, and are surrounded by native pines, maples and birches. The school was conceived as part of a larger plan to develop a tract of several hundred acres into a picturesque community development. Included in this plan is a large open-air stadium behind the gymnasium, which is already under way, and a public park.

Interest in the stadium has mounted to the degree that the people are not waiting for public funds to be available. Citizens from all walks of life have been pitching in and, with their own hands, clearing the land.

Community use of the Sanford gymnasium has worked out successfully not only because of the widespread local interest in this project, but also because the building itself was designed and constructed with the community in mind. Architects and engineers approached their tasks with an appreciation of the many uses the center would be required to fill. Here, for example, you have a fully-equipped, modern gymnasium with a seating capacity of 2,000 (1,000 permanent balcony seats and 1,000 folding bleacher seats on the floor level), large enough to house a full-sized (50-foot by 90-foot) basketball court, which can be quickly converted into a spacious dance hall for a Saturday night frolic, and just as readily transformed into a comfortable auditorium for a dramatic production or a concert.

Some of the special features of this recreation center,

which was designed by H. A. Kuljian & Co., Philadelphia architects, are:

1. For the first time, a folding partition is used to divide the gymnasium down the center, providing two practice floors which can be used simultaneously. This center partition permits both boys' and girls' classes to go on at the same time. It also permits teams to practice on a full-length court, and, since the seats are on both sides of the gym, spectators can watch events in each section.

2. On the east end of the gymnasium, there is a stage with a floor size of 42 feet by 18 feet deep, off which are two dressing rooms, each with a toilet room. On each side of the stage is an office for the physical education director. On the second-floor level, on each side of the stage, a band practice room is located.

3. Lockers, showers and toilet rooms for both boys and girls are under the permanent seats, the boys' department being located on the south side and the girls' on the north.

4. The basement provides for a lounge, checkroom, restrooms, team rooms, cafeteria, kitchen, small practice stage, stage shop and large band room.

5. The lobby (20 feet by 72) feet has been designed as a memorial to Sanford's war heroes. The floor is of red quarry tile and the walls are treated with a marble wainscot. Cove lighting is used to illuminate panels containing the names of those to whom the building is dedicated.

Blends with High School

To blend with the high school building, the exterior of the gymnasium was built of red brick trimmed with limestone. The main entrance doors are of stainless steel.

The Memorial Gymnasium has now been in use for a year and a half. To the people of Sanford, this project has been more than just the building of a place to play or observe games and events. It has served to unite all groups in the community in a common purpose—the creation of a living monument to democracy, a community home where young people and adults, alike, can come together for a happier, healthier community life.



City and School Plant Planning Go Hand in Hand

RUSSELL A. HOLY
Department of Education,
The University of Kansas City
Kansas City, Missouri

AN examination of city plans seems to indicate that the topics most commonly discussed fall within the following categories: major streets, transportation, transit lines, zoning, civic art, and public recreation. Each of these elements has important implications for school building planning.

The heavy street traffic on city streets renders the relation of school buildings to major thoroughfares an important consideration in the selection of school sites.

It is highly desirable that school districts be bounded by main thoroughfares so that pupils will not have to cross main arteries of travel to reach the school. In most well established cities, the ideal situation is not often found. Far too frequently, from the standpoint of safety, schools are located on or near thoroughfares so that many of the children are compelled to cross dangerous streets carrying heavy traffic. Of course, the location of junior and senior high schools with reference to major streets and thoroughfares is not so important as that of elementary schools since the older pupils are more able to take care of themselves.

Without a plan for the further development of the main streets and thoroughfares, a board of education is seriously handicapped in the matter of site selection. Such a plan constitutes the skeleton upon which the city is built. The school plant program can best be developed when those who are responsible for carrying it forward are fully aware of the character of the present street plan and also its probable future development. To this end there must be cooperation of the highest type between city planning commissions and school officials. To secure safety for children requires that the major street plan and the school building plan be worked out together.

Radburn, New Jersey, is a good example of a town that has been planned for the motor age. This town is planned so that main thoroughfares bound the school district, and schoolchildren do not have to cross hazardous streets in going and coming from school. In some cases it is possible to work out a plan of this kind, although it is difficult and costly in large congested cities.

With the present emphasis on neighborhood and community planning, future through traffic will be carried on major thoroughfares that bound the neighborhood. The residential area of the city of the future will be divided into neighborhoods, each a complete unit, that will pro-

vide all the services needed to meet the needs of the population residing in the area. An elementary school will be the center of the neighborhood located so that no home will be more than one-half mile from the school. Public transportation will be provided on the thoroughfares that bound the neighborhood. This type of neighborhood planning will insure a greater degree of safety not only to school pupils but to all others.

The School Plant and Transportation Lines

Areas bordering railroads are undesirable for school locations for three reasons. Such areas are hazardous to pupils, especially to small children. The noises are disturbing to pupils and teachers alike. Finally, such areas are frequently adjacent to commercial and industrial plants, creating an environment unfavorable for schoolchildren. There are cases where schools are located so near railroad tracks that while trains are passing, classwork has to be suspended. This is what happens sometimes when there is no city plan or there has been a lack of cooperation between school authorities and those responsible for city planning.

School districts should therefore be bounded rather than divided by transportation lines. Information concerning future probable developments of railroad and other transportation lines is essential to school building planning. Such information should constitute one of the main considerations in the purchase of all school sites and in the planning of a school building program.

The routing of rapid transit lines, which includes streetcars, bus lines, and subways, is an important part of the city plan. Since elementary schools should be located to serve a radius of one-half mile, it is unnecessary to consider transportation facilities for the use of grade pupils. Schools should not be located adjacent to streetcar and bus lines. In the selection of sites for junior and senior high schools, transit facilities are, however, an important consideration. Sometimes the distance between school and home is too great for high school pupils to walk so that it is necessary for them to make use of transit facilities. Frequently undeveloped areas offer possibility for larger and more adequate high school sites than can be had elsewhere.

School officials must have a knowledge of where transit lines are to operate in order to locate junior

and senior high school plants properly. Transit lines from residential districts should operate within reasonable distance of the school.

Relation of Zoning to School Planning

A further consideration in the selection of school sites is the use of the area surrounding the school. Insofar as possible, schools should be located only in residential areas for it is generally objectionable to have them situated in business or commercial districts on account of the distracting noises and the dust and smoke that permeate the air in these neighborhoods.

The shift of population from one area to the other, the expansion of the boundaries of a city, and the tendency toward blighting of districts where there is no legal check on the uses an individual may make of his land, render legal zoning regulations of the different uses to be made of the various sections of the city a necessary condition for a sound school building program. Among the principal objectives of municipal zoning is the stabilization of residential areas. Zoning is of particular importance in the location of school buildings in areas of future development. If school officials know that a certain section is to become residential, business, or industrial in character, it will be a decided advantage in the choosing of school sites. The lack of such knowledge leaves long-term planning of a school building program without a basis.

There are many cases on record of schools which have been built in sections of cities which have, after a few years, been taken by manufacturing and industrial concerns. This frequently means the abandonment of the school buildings, and, obviously a loss to the taxpayer.

Proper zoning also prevents the "blighting" of areas, an occurrence which means loss of confidence in districts that were originally planned for residential, business, or industrial sections. If a garage or a factory is permitted to be erected within a school district, the district is said to be "blighted" and the school begins to become depopulated. Whenever such a condition arises, either the school is eventually abandoned, or it is soon serving a decreased enrollment.

When a city does not have a well-worked-out zoning plan, it is difficult for the school system to expand normally. School systems situated in well-planned zoned cities have a distinct advantage for favorable development over those found where no zoning plan exists.

Civic Art and the School Plant

City planning is among other things a problem of art. Every time anyone erects a building, puts up a signboard, or plants a tree, he is either adding to the beauty of the city or detracting from it.

Because school buildings constitute a large portion of public buildings and because they are permanent features of a city, their location and design have a marked effect on its beauty. On the other hand, the beauty of school buildings depends on their proper selection with regard to physical environment. In planning the city and

the schools, the contribution of each to the beauty of the other is important.

The beauty and architectural design of schools influence the pupils who attend them. Besides, school buildings that are beautifully designed and placed on commodious sites in attractive environments, add to the dignity of public education and to civic interest. It should not be forgotten, however, that the presence of a good school in a poor area often tends to raise the esthetic and civic status of such an area.

A fine example of attention to the esthetic elements of a school building program is afforded by the city of Denver. A number of its schools have been carefully located and constructed so that they contribute to the lasting beauty of the city.

The location of school plants is of equal concern to the city planner and the school planner when considered from the esthetic point of view alone. The attention given to the design and beauty of school buildings and to the landscaping of grounds in the last quarter of a century or so is commendable. However, to secure the most pleasing esthetic results, it is necessary that the school building plan be closely worked out in relation to the city plan.

School Playgrounds and Public Recreation

Public playgrounds, parks, and school buildings have only too often been located without reference to one another.

It is in the interest of economy, education, and sound city planning that school plants, playgrounds, and parks be considered jointly. Frequently school grounds can be combined to good advantage with a park or a municipal playground.

Proper cooperation between city park departments and school authorities will facilitate providing greater recreational accommodations for both children and adults. School playgrounds, like school buildings, should be planned for wider use. Whenever possible, school grounds should be large enough to provide sufficient recreation area, and, also, to meet the needs of the people living in the school district. It should be recognized that school playgrounds should not be set aside for a few hours a day and denied the opportunities for service during vacation periods and after-school hours.

A combination of the elementary school grounds with the city park affords an opportunity in many cities for coordinating the city plan with the school plant program. However, in many cities where no consideration was given in the original city plan for combining parks with school playgrounds, it is extremely difficult to do much about it. Where the park is combined with the school grounds both facilities should serve approximately one square mile of residential territory.

If our cities are to become more desirable places in which to live, educational and recreational facilities must be advanced hand in hand. The advancement of both in the light of their relationship is the obvious aim of city and regional planners.

"With very few exceptions, almost every community in this country needs new schools either to

Lower Ceilings Mean Lower Costs

R. W. McKINLEY

Development Engineer, Pittsburgh Corning Corp.
Pittsburgh, Pennsylvania

ONE of the leading problems of the school executive today is the rising cost of building new schools and the continued maintenance of these new plants. With very few exceptions, almost every community in this country needs new schools either to replace old, worn-out buildings or to provide space for the rapidly growing school population. This is a problem that cannot be put off, or temporarily held in check by erecting cheap, but inferior schools. New, well-designed school plants are needed today. We cannot afford, either morally or economically, to cut costs by sacrificing quality. School design has a pronounced effect on child development. Poor designs not only impede the educational process, but also influence the child's physical development.

Practical school executives looking for an answer to the problems, have found that the use of lower ceilings in classrooms is a safe, simple means of reducing building and maintenance costs. Properly planned rooms with lower ceilings perform as well as rooms with higher ceilings (twelve feet and up). They are psychologically desirable, too, since they soften the transition shock from home to classroom and are aesthetically attractive.

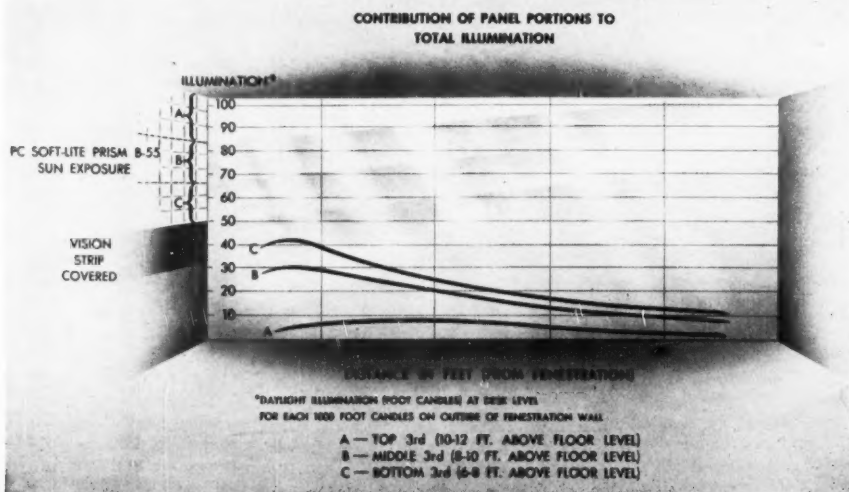
By lowering the classroom ceiling height, building materials and costly labor are saved. Consequently, building costs are reduced. Also, since the lowering of

the ceiling height reduces the total number of cubic feet in the classroom, heating costs are reduced. Authorities vary in their estimates of the probable initial saving likely to result from a reduction in ceiling height, and it is affected naturally by design. However, most of the architects seem to feel that in a classroom with 750-800 square feet of floor space an initial saving of at least \$150, and possibly as much as \$500, would result from each one foot reduction in ceiling height. Since each such reduction also eliminates about 30 square feet of heat loss area, additional savings may result from the reduction in heating capacity required. Operating economies are harder to evaluate, but also favor lower ceilings.

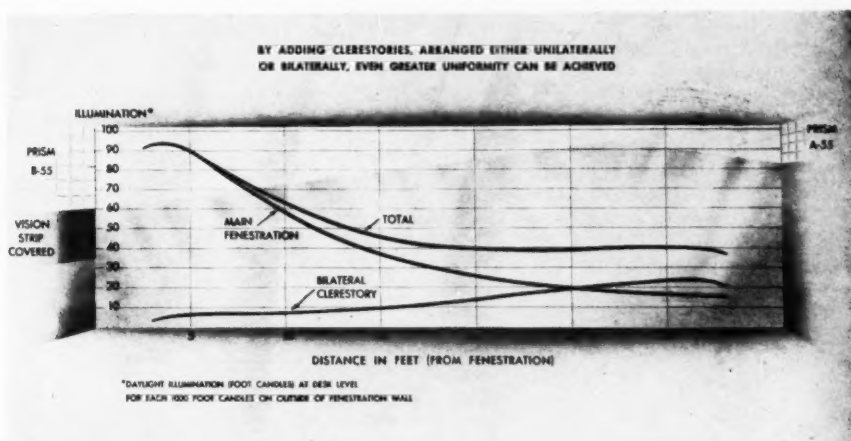
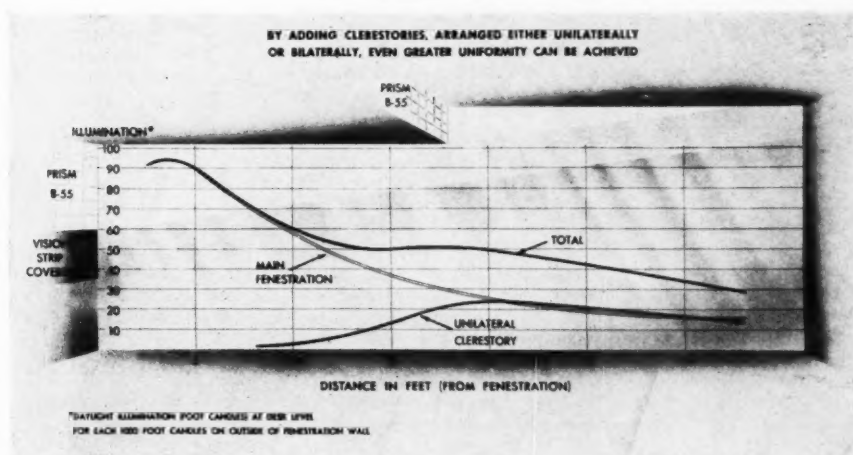
No Loss in Performance

All of this would be of no practical importance if these rooms with lower ceilings did not perform as well as rooms with high ceilings. Fortunately, by proper design they can be planned to equal and sometimes excel high-ceilinged rooms.

How does the lowering of the ceiling affect the child's development? To answer this question, it is best to delve into the background related to classroom ceiling height and illumination. Ceiling heights have been for many years standardized at a minimum of twelve feet. The practicality of the high ceiling was based on sizes



replace old, worn-out buildings or to provide space for the rapidly growing school population?"



of structural materials available, the old-fashioned rule of thumb that a classroom width must be no more than twice the height and the fact that ordinary windows must be high to permit the penetration of daylight into the classroom. It is, of course, important to realize that unilateral lighting in classrooms was in favor, and modern optical controls had not been fully developed.

The advent of light-directing glass blocks, the flexibility of modern structural materials and the realization that multilateral fenestration design is an effective method of getting good daylight distribution have put a new slant on this picture. Since prism-type blocks bend the incoming daylight upward toward the ceiling, where it is reflected downward and spread throughout the classroom, the angle of the sun to the fenestration is no longer a problem. Furthermore, when the glass blocks are used, the lowering of the ceiling height, even where

unilateral fenestration is employed, does not reduce the light level in the classroom below the required quantity.

Careful studies undertaken at the Pittsburgh Corning Daylighting Research Center indicate that when light-directing glass blocks are used in the fenestration, the lower ceiling height is completely satisfactory in terms of daylighting performance.

Since variation in the ceiling height reduces the number of courses of glass blocks in the fenestration, the problem becomes: which portion of the block panel supplies the most light to the far side of the room? To solve this, the daylighting engineers blacked out the vision strip below the glass block panel. Then they divided the panel in thirds from top to bottom and proceeded to black out portions of the glass block panel. This test revealed that the bottom third of the panel was responsible for 50 percent of the daylight directed to

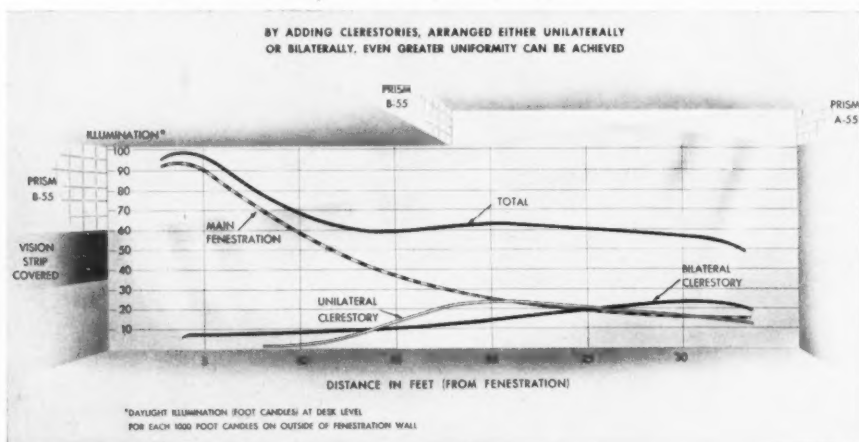
"Poor design impedes the educational process and influences the child's physical development"

the area of the classroom opposite the fenestration. Further tests revealed that it was completely within reason to lower the ceiling height because of this performance relationship. The engineers also pointed out that since the lower courses of the light-directing blocks provide the illumination to the far side of the room, the sill height of the block panel should not be raised above 6 feet, since this would reduce light available on the far side of the classroom.

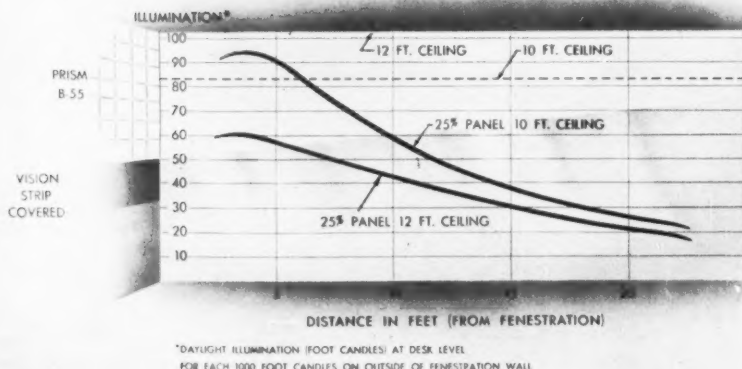
During discussions concerning the passage of an amendment to the school building code in Ohio which would permit the use of 10-foot ceiling in classrooms, Arthur Baer, assistant business manager and architect for the Cleveland school system, clearly stated the position of school executives who have investigated the

cost-saving construction detail. Mr. Baer commented, "The light-directing qualities of prism-type glass blocks utilized with clear glass vision panels, together with other improvements in light-producing materials, make it possible to meet the most stringent daylighting needs required by schools with low ceilings." The amendment to the school building code was passed, and 10-foot ceilings in classrooms in Ohio are now permitted. Several other states also permit lower ceiling heights while others are experimenting.

With the practicality of lower classroom ceilings definitely settled by the illuminating engineers in conclusive tests, it appears that a definite advancement has been made toward the lowering of school building costs and operating budgets.



**GLASS BLOCK PANEL SILL 6 FT. ABOVE FLOOR
(PC SOFT-LITE PRISM B-55)
SUN EXPOSURE**



Controversy on 'Released Time' Still Rages Despite High Court Ruling on New York Case

The six to three Supreme Court ruling that New York State violated no constitutional rights in releasing students for religious training, far from resolving this long controversial issue, seems to have created a new stir across the nation.

By reversing the position taken in the Illinois (*McCullum vs Board of Education*) case and declaring that each case would have to be decided on its own merit, the high court ruled out immediate prospects of a clear-cut position on the whole question of religious education in public schools.

Educators and parents — both pro and con — found fresh ammunition, however, in the differing opinions written by the Supreme Court Justices in the New York case.

Justice Douglas, in writing the majority opinion, summarized the Court's ruling thus:

"... In the *McCullum* case the classrooms were used for religious instruction and the force of the public school was used to promote that instruction. Here, as we have said, the public schools do no more than accommodate their schedules to a program of outside religious instruction. We follow the *McCullum* case. ... But we cannot expand it to cover the present released-time program unless separation of Church and State means that public institutions can make no adjustments of their schedules to accommodate the religious needs of the people. We cannot read into the Bill of Rights such a philosophy of hostility to religion."

In three dissenting opinions, Justices Jackson, Black and Frankfurter did not concur that there was sufficient difference between the Illinois and New York cases to justify the majority ruling.

Wrote Mr. Justice Jackson: "... The distinction attempted between that case and this is trivial, almost

to the point of cynicism, magnifying its nonessential details and disparaging compulsion which was the underlying reason for invalidity. A reading of the Court's opinion in that case along with its opinion in this case will show such difference of overtones and undertones as to make clear that the *McCullum* case has passed like a storm in a teacup. The wall which the Court was professing to erect between Church and State has become even more warped and twisted than I expected. Today's judgment will be more interesting to students of psychology and of the judicial processes than to students of constitutional law. ..."

Wrote Mr. Justice Black: "... State help to religion injects political

and party prejudices into a holy field. It too often substitutes force for prayer, hate for love, and persecution for persuasion. Government should not be allowed, under cover of the soft euphemism of "co-operation," to steal into the sacred area of religious choice."

Wrote Mr. Justice Frankfurter: "... The pith of the case is that formalized religious instruction is substituted for other school activity which those who do not participate in the released-time program are compelled to attend. The school system is very much in operation during this kind of released time. If its doors are closed, they are closed upon those students who do not attend the religious instruction in order to keep them within the school. That is the very thing which raises the constitutional issue. It is not met by disregarding it. Failure to discuss this issue does not take it out of the case. ..."



Co-ed June Hallock carries the world on her shoulders as part of her stint in helping to move Trinity University, San Antonio, Texas, into its new buildings, five miles across the city.

A University Moves In One Day

Trinity University, San Antonio's 83-year-old institution, moved five miles across town to a new 107-acre campus in one day.

It took 51 vans, trailers, trucks and 72 men to move nearly a half-million pounds of supplies and equipment to the school's new home.

This stupendous moving feat was accomplished through community co-operation without charge to the university.

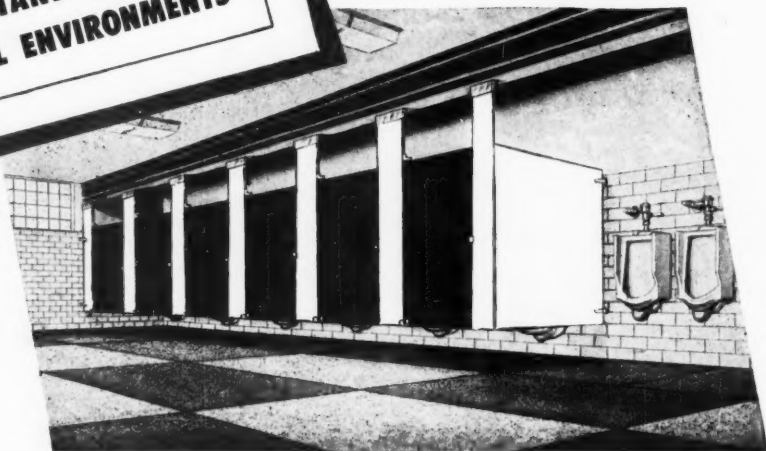
The Association of Motor Carriers handled the job and their truckers were assisted by Trinity students and faculty members.

Other organizations which pitched in were the 141st Infantry Regiment, Texas National Guard, Baptist Mem-

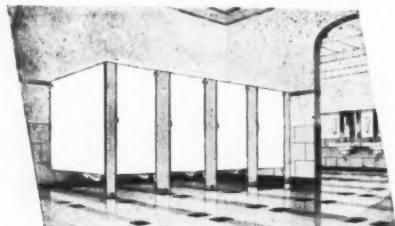
Sanymetal*
*Trade Mark Reg. U. S. Pat. Off.

**A TOILET ROOM ENVIRONMENT
 IS AS IMPORTANT AS OTHER
 EDUCATIONAL ENVIRONMENTS**

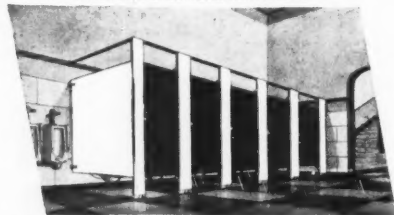
**Sanymetal CENTURY Type
 Ceiling Hung Toilet Compartments**
 offer the utmost in sanitation
 and provide modern,
 distinctive toilet room environments
 for schools, institutions,
 terminals and other public
 buildings.



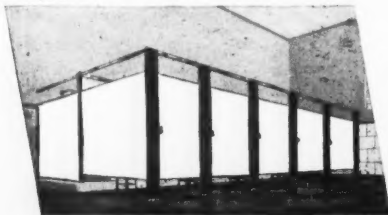
**Sanymetal NORMANDIE Type Toilet
 Compartments** endow a toilet room
 environment with dignity and good taste.



Sanymetal ACADEMY Type Toilet Compartments are suitable
 for conservative but modern toilet room environments.



**Sanymetal ACADEMY Type Shower Stalls and Dressing Room
 Compartments** provide the utmost in sanitation for gymnasiums,
 stadium dressing rooms, Y.M.C.A.'s, clubs, trailer camps and
 tourist motels, etc.



*Treated with "Bonderite", a product of Parker Rust Proof Company.

● Toilet room environments impress students either favorably or unfavorably. Toilet room facilities in educational institutions are no less important than bathrooms in the home. The treatment of a toilet room environment is, therefore, no longer secondary to its utility. Toilet room compartments usually dominate a toilet room and influence its environment.

Sanymetal offers several different types of toilet compartments for creating the most suitable toilet room environment for every type of educational building. Sanymetal offers these different types of toilet compartments in *two full purpose materials*: Sanymetal "Tenac"—galvanized, Bonderized* steel—a highly corrosion-resistant material; and Sanymetal "Porcena"—porcelain on steel—the ageless, ever-new material. Sanymetal Toilet Compartments embody the result of over 38 years of specialized skill and experience in making more than 200,000 toilet compartment installations in all types of educational buildings and every other type of building constructed.

Ask the Sanymetal representative in your vicinity for information about planning suitable toilet room environments. Refer to Sanymetal Catalog 22b in Sweet's Architectural File for 1952.

THE SANYMETAL PRODUCTS CO., INC.
 1711 URBANA ROAD • CLEVELAND 12, OHIO

Sanymetal
*Trade Mark Reg. U. S. Pat. Off.

**TOILET COMPARTMENTS, SHOWER
 STALLS AND DRESSING ROOMS**

orial Hospital nurses, San Antonio Fire and Police Departments.

Mayor Sam Bell Steves and other city officials donned overalls and carried packing cases.

Make National Survey On Adult Education

The research division of the National Education Association is now processing returns on the first part of a national survey of public school adult education programs.

This part of the survey was a questionnaire mailed to 1,232 cities to determine the extent that adult education is being carried on in the United States and the types of programs under way.

The second part of the survey will be a cooperative evaluation of public school adult education programs by community leaders in more than 300 selected communities.

With 50 percent of the returns of the questionnaire in by April 1, 1952, the following preliminary facts have been released by NEA's research division.

Two hundred and eighty-two cities have no adult education programs, 200 of which are in cities of 30,000 population or less; only 158 cities have a director who spends 26 percent of time or more on the program.

Among the preliminary observations which NEA is able to make from the survey are: there has been wide interest in participating in the second part of the study, the evaluation of local programs by community leaders; there is special interest in tackling such problems as—administrative relationships between public school and adult education programs.

Wisconsin Group Seeks Educational TV Network

A program to seek legislative support for a state-wide educational television network has been adopted by the Wisconsin Citizens Committee for Educational Television.

The WCCET, with representatives from 25 educational, agricultural, labor and civic organizations, is asking for a television pattern similar to the state radio network, created in



Assembly RM452 pre-rinses dishes, disposes garbage simultaneously—ahead of dishwasher. Equipped with "Silver-Gard" and pre-rinse.



Assembly RM352 is used at various centers where garbage occurs—in the dishwashing and vegetable center—and other centers of activity.

New! Waste King Commercial Pulverator with COMPLETE ASSEMBLIES!



Sold by leading Restaurant & Hotel Equipment and Supply Dealers nationally.

America's finest garbage disposer—designed for heavy-duty use. (Not to be confused with home models).

ELIMINATE GARBAGE AT POINT OF ORIGIN! Complete Waste King Commercial Pulverator Assemblies designed to dispose of all garbage at the dishwashing area, cooks' table, rough vegetable and salad preparation center—other centers of activity where garbage occurs. Accumulation of garbage is eliminated.

PROVED AND ACCEPTED BY THE FOOD SERVING INDUSTRY. Thousands of Waste King Commercial Pulverators are being used daily in Restaurants, Hotels, Camps, Factory Commissaries and other food serving fields. Whether 100 or 100,000 meals a day are served—garbage costs are changed into profits with a Waste King Commercial Pulverator!

Remember! "Savings are as important to Profit as Sales!"



A Product by Given Mfg. Co., Los Angeles, Calif.



Dept. SE-7 Given Mfg. Co.
1250 Wilshire Blvd., Los Angeles 17, Calif.

☐ Send full details on WASTE KING Commercial Pulverator Assemblies.

☐ Send name of nearest restaurant and hotel equipment and supply dealer.

Firm Name _____

Address _____

City _____ State _____

Your Name _____ Title _____

To WASH or NOT to wash?

That is the question!

HERE IS THE ANSWER!



WASH KYS-ITE TRAYS and TABLEWARE

Boil it, sterilize it, scrub it...this plastic tableware stands up under all kinds of washing. Stays lustrous, colorful, beautiful.

Student-proof, too...impossible to shatter, tough to chip or crack. Trays in cheerful red or rich brown...tableware in smart maple finish. Also 3-partition plates for carrying full meals—perfect for smaller children.



DON'T WASH CHI-NET SINGLE SERVICE TABLEWARE

Handsome, individually molded fibre, disposable tableware...great for supplementary or regular service. Light, silent, rigid, waterproofed, grease resistant. Economical, too...cuts overhead...costs so little many schools use it exclusively.



CHI-NET Tableware ☐ KYS-ITE Tableware ☐
SAVADAY Paper Plates and Dishes ☐

Please send information on

Name _____ Title _____

Name of School _____

Address _____

City _____ Zone _____ State _____

My wholesaler is _____

SPOTLIGHT

1945 by the Wisconsin legislature.

Interest in state-operated radio and television has been so great in Wisconsin that special efforts of the State Radio Council resulted in the Federal Communications Commission's upping Wisconsin's original allotment of six television channels for educational use to twelve.

Harvard Offers New Course In School Administration

Beginning in September, 1952, Harvard Graduate School of Education will have a new program for training educational administrators.

The program—a three-year course leading to the degree of Doctor of Education—will stress field work in school systems and will offer practice in making decisions and solving actual administrative problems.

School administrators will be trained by the same "case method" which is used in the Harvard Law School and Harvard Business School.

Enrollment will be limited to 20 students drawn from men and women already experienced in educational administration and from applicants with little experience who show promise of superior administrative ability.

Bring Students to U.S. From Asia, Near East

One hundred outstanding young leaders and university professors from southeast Asia and the Near East will be brought to the United States during the next academic year to receive advanced training and to teach in American universities.

They will come here as part of an international fellowship program set up by the Institute of International Education and the Conference Board of Associated Research Councils. These organizations have received a grant of \$300,000 for international scholarships.

Candidates for the scholarships are now being selected in Burma, India, Pakistan, Iran, Iraq, Egypt, Turkey, and Greece.

The objectives of this project are:

FLOORS CAN TAKE

Punishment

and still keep that
NEW LOOK



An exuberant square dance in this gym at Grover Cleveland School, Rahway, N. J. held worries for custodian, Fred Spencer. Fortunately, the floor had been treated with Tremco Penetrem, so Tremco Floor Conditioner and an ordinary mop broom quickly had the floor gleaming and restored to tip top shape the following morning.

● Wood floors in school rooms and corridors suffer constant scuffing and pounding. Unless protected, wood cells wear down, roughen, and heavy traffic "paths" become visibly hollowed out. Yet it is imperative that school floors be kept clean, smooth, immaculate.

PENETREM FLOOR SEALER

permeates wood fibers. It "mechanically hardens" surfaces for resistance to wear and decay—makes floors more easily kept clean, more economically maintained.

A Continuing Floor Maintenance Program, rather than an intermittent one, is now recognized as the best way to keep floors in schools, public buildings serviceable and attractive. Study of typical practices by schools has aided the Tremco Laboratory to prepare and offer planned Maintenance Programs for different floors, under varying conditions. We are glad to send it to you—you'll find it most helpful.

Send for FREE BOOKLET

"Floor Maintenance for Schools, Public Buildings and Offices"

This booklet, or the on-the-spot advice of a Tremco Man is yours without obligation. Write The Tremco Manufacturing Co., Cleveland, Ohio.



TREMCO

PRODUCTS AND METHODS
FOR BUILDING MAINTENANCE

(1) to enable these educators to improve their skills so as to be of greater usefulness to their home countries in their special fields; (2) to permit them to get a first-hand understanding of United States' methods and institutions; (3) to assure that potential leaders in these countries will have a better understanding of the United States and its people.

Northeasten University Christens New Library

A new \$1,500,000 library opened its doors to students of Northeastern University in Boston May 26 one month ahead of schedule.

Begun in August 1950, the building was not scheduled for completion before July 1 but favorable construction conditions—a rarity in these times of materials and labor shortages—made it possible for students leaving for summer holidays to participate in its christening.

Outfitted with the most modern library equipment, the new building contains five stories with approximately 80,000 square feet of floor space. The main reading rooms are capable of seating 750 students at one time and have shelf space for 300,000 volumes.

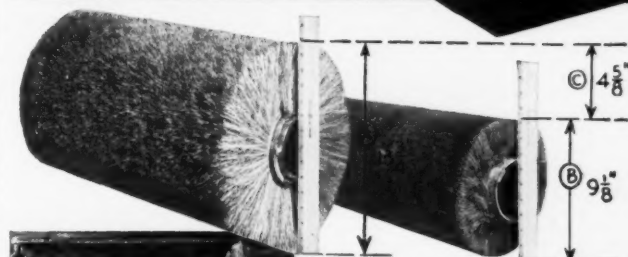
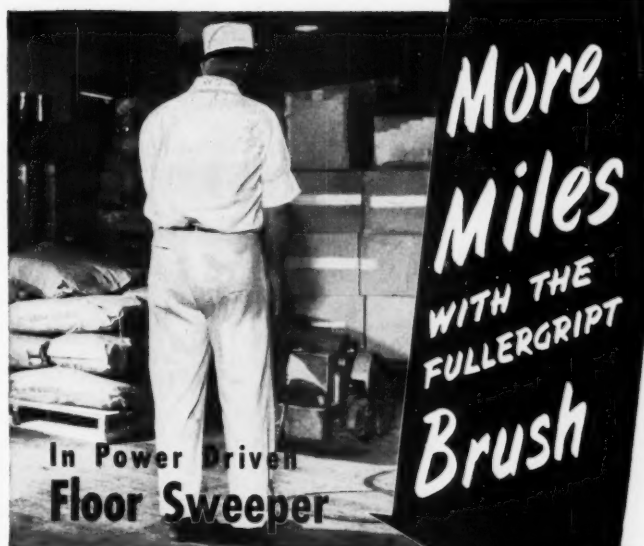
Other facilities of the library are: five large reading rooms; microfilm library and microfilm reading room; listening room; special library of poetry, literature and drama; treasure room for rare books and manuscripts; conference-study rooms; smoking-study rooms; card catalogue room; and work areas for the library staff.

New School of Education At Michigan State College

Beginning July 1, Michigan State College will have its own School of Education.

Although the college has been one of the leading teacher-training centers of the nation, this work has been done through its education division.

Upon the approval of the State Board of Agriculture, the division of



Another Fullergrit brush after 2 years, 9 months of service. This special, short-trimmed, crimped-wire brush was used to remove a thin layer of wood from a grease-soaked floor.

5 times the Wear

- A Fullergrit fiber and wire mixture brush before use in floor sweeper.
- B Same brush after 10 months service — 5 times as long as the ordinary brush lasts.
- C Note that although brush has worn down 4 3/8", there is no evidence of material shedding, loose backing or warping.

Users of power-driven floor sweepers consistently emphasize the longer brush life, the improved sweeping efficiency and the saving of man-hours with Fullergrit brushes! Write us for information.

INDUSTRIAL DIVISION
FULLER BRUSH
FULLERGRIP

At home... in business, too



THE FULLER BRUSH CO. • INDUSTRIAL DIVISION • 3556 MAIN ST. HARTFORD 2, CONN.

SPOTLIGHT

education was given the status of a school and it will contain six departments: secondary, elementary, vocational, guidance and counselor training, educational administration and higher education.

Dr. Cecil V. Millard, director of Michigan State's education curriculum since 1942, will head the secondary education department; Dr. H. M. Byram will be in charge of vocational education; and Dr. Troy L. Stearns will head elementary education.

Audio-Visual Group Maps Confab Program

Chicago will be the scene of the 1952 convention of the National Audio-Visual Association when it opens its annual meetings at the Hotel Sherman August 5.

This year's convention will center around three main themes, according to Mackey Barron, Chairman of the

NAVA Convention Committee. These are: improving service to audio-visual users; learning to use and sell new products; and solving trade problems in the audio-visual business.

The National Audio-Visual Trade Show will accompany the parley but will open on August 2, one day earlier.

New Quarterly For Librarians

A new journal for librarians, *Library Trends*, makes its debut this month. A publication of the University of Illinois Library School, Urbana, Illinois, it will be issued quarterly and will have a special editor for each issue.

The new publication will offer librarians the following: an evaluation of topics relating to librarianship; results of research in library practice; review and evaluation of current library practices; prediction of future trends and developments in the library field.

The topic for the first issue is:

"Current Trends in College and University Library Development." Guest editor is Robert B. Downs, Director of the Library and Library School, University of Illinois.

Gradesters to Get New Magazine

A new weekly magazine for elementary school grades to begin publication in September has been announced by Scholastic Magazines.

For classroom use, this publication will serve fourth and fifth grades. "Its content—for reading and discussion—will include geography, natural sciences, stories, citizenship, word-building, and news of our country and the world," announced M. R. Robinson, publisher.

New Sound Film Teaches Citizenship

The Audio-Visual Materials Consultation Bureau of Wayne University College of Education has just released a 15-minute sound motion picture showing how the school can provide opportunities for citizenship development.

Titled "The School—the Child's Community," the film dramatizes the ways a school can encourage a child to accept responsibilities in guiding his own destiny. It is produced specifically for in-service and pre-service teachers but is also recommended for use with parent groups. The price is \$75.00.

Cleveland Heights Citizens Provide 'Pipeline' to Board

Two years ago the board of education at Cleveland Heights, Ohio, hit upon a method to bring the community into more active participation in the activities of the school administration.

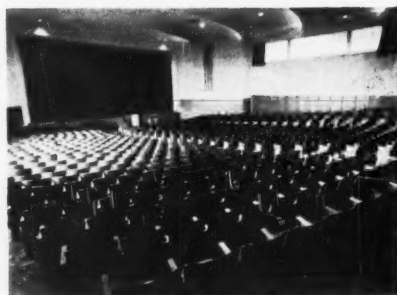
The plan they adopted was to appoint citizens outside the board of education to various committees with a board member as chairman of each.

The function of these lay committees has been purely advisory to the board. They have no administrative function. Their purpose has been to provide a means for furthering the public relations of the board, to give the public an interpretation and un-

Griggs

Modern School Seating

Genuine comfort, beautiful appearance and exceptional durability are built into Griggs auditorium seating. A wide range of models from luxurious fully upholstered chairs to plywood seat and back models meet the requirements of all schools for the best in auditorium seating.



Modern design, fine quality materials and skilled craftsmanship assure comfort, attractive appearance, and convenience in all Griggs chairs for a life time of severe service in school auditoriums.

Write for Griggs Seating Catalog for full information on auditorium seating!

**GRIGGS
EQUIPMENT
COMPANY**

★
*Manufacturers of School,
Church and Theatre Seating*
BELTON, TEXAS

derstanding of the board's policies, and to advise the board on public views on policies and program.

The committees cover the following areas: Committee on Human Relations; Committee on Instruction; Committee on Buildings and Grounds; and Finance Committee. Their sizes range from twelve to twenty members.

In reporting the success of lay committees, O. E. Hill, superintendent of schools, described them as "pipelines to and from the committee," and declared, "The resources uncovered by the plan are immeasurable."

Controls Relaxed On Building Construction

After July 1, 1952, construction of recreational facilities will not be prohibited and there will soon be further provision for "self-authorization" and fewer restrictions on commercial and general construction.

In making this announcement, Henry H. Fowler, Administrator of the National Production Authority, stated recently that production has been sufficiently increased in such basic industries as steel, aluminum, rubber, electric power, petroleum, and important chemicals to permit removal of some controls.

Many Job Openings In Defense Production

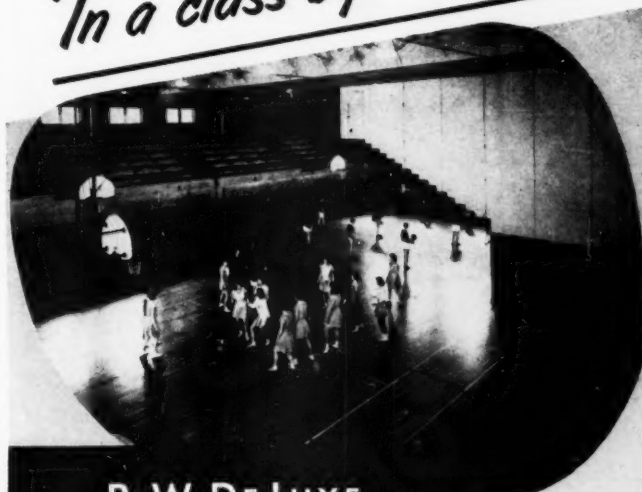
Many students are training for defense production despite the fact that no special Federal funds are available for training programs, according to U. S. Commissioner of Education Earl J. McGrath.

Severe shortages in the engineering field, for example, have led colleges to encourage students to study engineering.

The Commissioner declared that it is also inevitable that a large number of students enrolled in vocational courses will find their way into some phase of defense production.

"It is to be hoped," declared McGrath, "that students who are being

"In a class by itself!"



R-W De LUXE
FoldeR-Way
PARTITIONS

**Fully
Automatic
Electrically
Operated**

Schools throughout the nation can testify to the efficiency of the R-W DeLuxE fully automatic electric sound-proof folding partition. Because of its high standard of excellence and performance, this type of equipment is now specified by leading School Architects and demanded by progressive Boards of Education as the best solution to current problems of space and expenditure.

The R-W FoldeR-Way Partition is 3" thick for all standard applications, such as gymnasiums, auditoriums, stages, etc. Duck-covered, sound insulated, acoustically designed doors provide the ultimate in "sound-stifling" construction. Doors are positively locked to the floor without the use of any floor bolts, tracks, or mechanically operated devices. Electrically operated—you just turn the switch-key and R-W does the rest. The DeLuxE FoldeR-Way Partition goes into motion smoothly and silently—opening or closing automatically!

R-W Also Features Manually Operated FoldeR-Way Partitions and Classroom Wardrobes.



R-W No. 237 Manually Operated "FoldeR-Way" Partitions and No. 780 Classroom Wardrobes.



For complete information on how to cut costs and overcome overcrowding with R-W FoldeR-Way Partitions and Classroom Wardrobes, telephone, write, or wire our nearest office today. No obligation.

Richards-Wilcox Mfg. Co.

"A HANGER FOR ANY DOOR THAT SLIDES"
SUNGLEN, ILLINOIS, U.S.A. Branches in all principal cities
WOOD: STAGE HANGERS & TRUCK & RAIL DOORS & PARTS • GARAGE DOORS & EQUIPMENT
METAL: HANGERS & TRUCKS • SCHOOL WARDROBES & PARTITIONS
ELECTRIC: DOORS & PARTS • PARTITIONS & EQUIPMENT

1880



1952

Box 10, St. Paul, Minn.
OVER 72 YEARS

Here it is!

The duplicating machine you asked us to build — A machine that will fulfill all school requirements at a price schools can afford.

WITH

Cyclomatic Action

ONLY
\$175*



*PLUS FEDERAL EXCISE TAX

NOW... A spirit duplicating machine especially engineered and designed to handle the hundreds of different school jobs. Built to OLD TOWN's rigid specifications of top quality — for rugged school use — high-speed production.

Here's the finest little duplicator that money can buy — featuring "cyclomatic action" which assures faster, more brilliant reproductions. Produces 1 to 6 colors at one time, in split seconds. Makes over 140 clean, clear copies a minute, of anything you type, write, print or draw — on varying weight paper or card stock; 3" x 5" up to 9" x 14". Clean, fast, easy to handle. Write for illustrated brochure TODAY on the revolutionary new OLD TOWN Model 95 Copymaker.

OLD TOWN'S Model 95 COPYMAKER

Has ALL the usual Duplicator features PLUS: —

- **CYCLOMATIC ACTION** — Sealed in bearings and high-tension gears give greater speed, efficiency, economy and a life time of service
- **FLUID CONTROL** — Prevents excess moisture and results in instantaneous drying
- **SINGLETTES** — Patented sheet separator prevents waste and blank sheets
- **WIZARD COPY CONTROL** — Regulates brightness of copies or length of run

School Supply Houses:

The many unique and exclusive features of this new OLD TOWN Model 95 Copymaker assure you repeat business. Write TODAY for complete dealer franchise information.



750 PACIFIC ST., BROOKLYN 17, N. Y.

Made by the manufacturers of world-renowned
OLD TOWN Carbons, Ribbons, Duplicating Machines & Supplies

SPOTLIGHT

trained in skills needed in the defense production program will be encouraged to make contact with the local employment offices. . . . It is also to be hoped that school officials will continue to deal locally with defense contractors and existing labor-management committees in order to keep aware of the characteristics and employment requirements of the defense production programs in their communities. . . ."

Global Groups Merge

The World Confederation of Organizations of the Teaching Profession is scheduled to meet in Copenhagen in July and August. The delegate assembly of that body now represents about 2,000,000 teachers on all continents. The meeting will mark the merger of three international teacher organizations. Torres Bodet, director general of UNESCO, has been invited to address the inaugural session.

Appointments

Paul D. West, Superintendent of Fulton County Schools, Atlanta, Georgia, has accepted membership on the Executive Committee of the American Association of School Administrators. He will fill the unexpired term of Virgil M. Rogers ending March 15, 1954.

Mr. West is immediate past president of the Division of County and Rural Area Superintendents of the NEA Department of Rural Education.

Educator Retires from NEA Staff

Miss Agnes Samuelson, prominent Iowa educator, retired this month from her post as assistant director of NEA publications and assistant editor of the NEA Journal.

Prior to coming to NEA in 1945, Miss Samuelson was a teacher, superintendent, and state superintendent of public instruction in Iowa and served as executive secretary of the Iowa State Teachers Association. She has also been president of the NEA.

The Washington Scene



Dear Dave:

The Capitol Hill spotlight moves again toward education as a special "un-American activities committee" is formed with Congressman E. E. Cox, (D-Ga.) as chairman. Representative Cox is the author of the House resolution adopted by a vote of 173 to 158 authorizing the creation of this seven-member committee.

The purpose of the committee may be best stated in the words of the Cox resolution: "The committee is authorized and directed to conduct a full and complete investigation and study of educational and philanthropic foundations and other comparable organizations which are exempt from federal income taxation to determine which foundations and organizations are using their resources for purposes other than the purpose for which they were established and especially to determine which such foundations and organizations are using their resources for un-American and subversive activities or for purposes not in the interest or tradition of the United States."

It will be noted that the proposed targets are foundations and organizations enjoying tax-exempt status. There is no other restrictive specification in the resolution. Presumably the committee could subpoena witnesses and records of local sodalities, sewing circles, and ladies aid societies, if necessary.

The Washington Post referred to the House action editorially as follows: "Immeasurable mischief lies behind this resolution, which can accomplish nothing more than harass the educational foundations."

Other critics characterize the action as one to put ideas on trial. Congressman Jacob K. Javits, (R-N.Y.), says

that "what is sought to be put on trial here before the official committee are the social purposes which these organizations to be investigated are helping."

That those who support this new move have designs on education may be surmised from the fact that Allen A. Zoll was in the House gallery the afternoon the resolution was passed after heated debate. It is rumored that Aaron Sargent is being considered as legal counsel for the new committee. Mr. Sargent has been active in the legislative investigation of textbooks in his home state of California, and is reported to be the author of the "Bill of Grievances" drawn up by the National Society of the Sons of the American Revolution and presented three years ago to the Un-American Activities Committee.

This "Bill of Grievances" states that "the public schools are being dominated by a group of so-called 'progressive' educators in the schools of education in our leading universities. Propaganda originating from that source is being introduced in high schools and even in the elementary grades. Much of this material is slanted to favor socialism and communism. Some of it is designed to convert this country into a social welfare type of state."

The "Bill of Grievances" names scores of educators and textbooks charged with subversiveness of one kind or another.

Another resolution approved by the Rules Committee of the House could have implications for education. Sponsored by Congressman E. C. Gathings (D-Ark.), the measure seems to apply to a vast area in "books, magazines, and comic books." It would set up a nine-member committee to look into literature which

"contains immoral, obscene, or otherwise offensive matter, or placing improper emphasis on crime, violence, and corruption." The Rules Committee also has approved another resolution offered by Congressman Gathings, which would direct the House Interstate Commerce Committee to determine the extent to which radio and television programs "place improper emphasis upon crime, violence, and corruption." Presumably school texts and educational radio and television programs do not come in the categories to which the resolution of Congressman Gathings would restrict the operation of these committees. Experience indicates, however, that walls between categories are not impervious.

Some educators, confident that American education is suffering from no aberrations serious enough to justify such indictment, say that they would welcome investigations as an opportunity to show the American people the strength and soundness of American education. Others say that they would deplore the amount of time consumed in such projects.

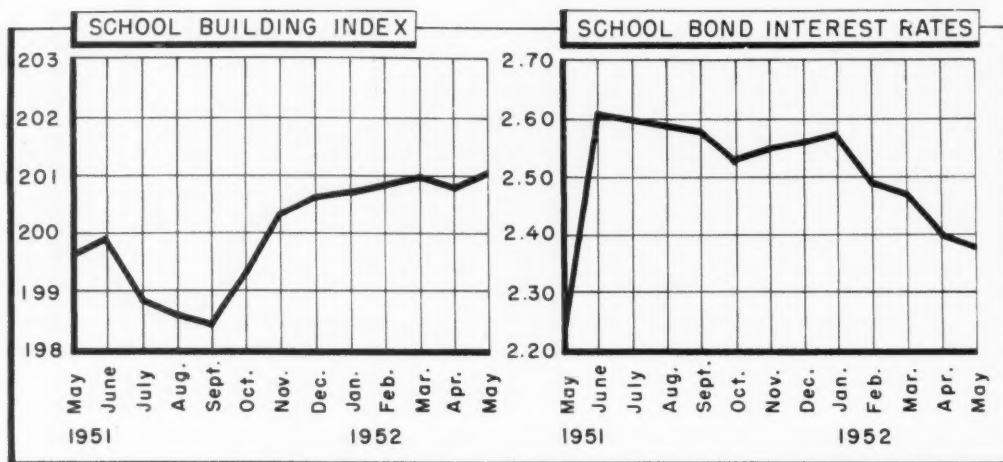
Educational administration was involved in another Washington front when the U. S. Supreme Court upheld the constitutionality of the released time program through which New York City public school pupils may be freed from classes one hour weekly for religious instruction away from school property. The practice was approved by a 6 to 3 ruling. (See story on page 79)

The Fund for Adult Education of the Ford Foundation has granted \$145,000 to the Joint Committee on Educational Television now in its second year of operation. The amount is approximately fifty percent in excess of that granted to support the activities of the Joint Committee for the fiscal year closing in April.

Current difference over the G. I. Bill for Korean veterans hinges on whether the bill should establish a direct scholarship payment to the veteran in training or provide payment in the form of tuition to the institution attended by the veteran, as was done under the previous G. I. educational measure. The legislation as now written provides for a scholarship.

Your fellow Missourian

Les



School Building Costs and Bond Prices

HAROLD F. CLARK, Economic Analyst
Teachers College, Columbia University

THE INDEX of the cost of school buildings has been remarkably stable during the past two months. In May it rose slightly to 201.1 percent (1939 = 100) from April's index of 200.8 percent. This represents a slight decline in April and an almost equal rise in May bringing the index back almost to where it had been two months earlier.

The seeming stability of the cost of school buildings is caused by two quite different kinds of price movements. Material prices have been declining while labor prices have been rising just about an equal amount.

Wholesale Prices Down

The major wholesale price indexes have been declining for some time. Wholesale prices are four to five percent under what they were a year ago. This is good news, and if it continues, further drops in retail prices can be expected. A number of building materials have declined along with other prices. The price of lumber is down with many types off as much as five percent and some declining as much as ten percent. Prices of brick, tile, paint and a good many other items have also declined.

There has been some increase in efficiency on the part of the building industry in recent months, but wage increases of the building workers

have not been held to the rate of increase of efficiency in the industry. The net result has been a rise in labor costs which has led to an inflationary rise in cost of buildings.

It would probably be a wholesome thing to stop occasionally and ask ourselves how fast we want an inflationary rise in the price of buildings. School buildings now cost four times what they did before World War I and over two times what they cost before World War II. Most authorities in the field would say that the increase in wages and increase in cost of materials should be held fairly close to the increase in the efficiency of the building industry. If we do not do this, inflationary price rise is inevitable.

Construction at All-Time High

The volume of building construction has been larger than anticipated, and it looks now as though the first part of the present year has set an all-time record in building construction. Many authorities are predicting an all-time record for the entire year. This is important to schoolpeople as it may affect the ease of getting material and labor for school buildings. Any substantial drop in the total volume of construction could also bring a real drop in building prices.

For practical purposes, government

restrictions have been lifted on building. Unless there is a change in the military situation, school construction this year could easily set a new record. Between 30,000 and 40,000 new classrooms will be needed for the increased number of children entering school. About 15,000 are needed to bring present plants up to date.

School Bond Interest Rates

Interest rates on school bonds continue to decline. The average interest rates of all school bonds sold in May was 2.38. The Federal government is slowly relaxing its control of interest rates. Consequently, some interest rates have shown a rising tendency. In recent weeks, however, there has been an easing of interest rates. It is very difficult to see just how far this will go. An abrupt change in policy by the Federal government could tighten interest rates overnight and lead to a sharp rise in school bond interest rates. At the present moment, there is nothing in sight to suggest any necessity for such action. The tax advantage of school bonds is such that they could drift even lower in the weeks immediately ahead if there is no outside interference with the market. In any case, the present market is an entirely satisfactory one from the standpoint of school bond interest rates.

It's Coming!



IT'S NEW! SENSATIONAL!

Within a very short time, Rowles will announce one of the most revolutionary new ideas in classroom seating ever seen. Just what you've waited for.

ROWLES
School Equipment

Watch for it! See your local
ROWLES SCHOOL EQUIPMENT DEALER

Your Professional Library

Recent publications which the school administrator will want to read, to pass along to associates, or "to have heard of."



New Crises for Education

January, 1952, issue of *Platform*
Newsweek Club Bureau
152 West 42nd Street, New York 36
19 pp. 25¢

A succinct summary of the pros and cons on the ideological conflict smoldering, and occasionally raging, in America's public schools, prepared by Newsweek's Club and Educational Bureaus. Material for the pamphlet was gleaned impartially from recent books, articles, speeches, and organizational resolutions.

School Camping

By George W. Donaldson
Association Press, New York
1952 140 pp. \$2.25

George Donaldson, director of outdoor education for Tyler, Texas, Public Schools, addresses this book on the principles and practices of good camping primarily to "camp people."

Without doubt there are a number of camp leaders who could benefit from Dr. Donaldson's theories and suggestions on camp administration, recreation, health practices, work habits, and proper use of natural resources.

But it is to be hoped that his statement of beliefs may also reach a larger audience—community leaders everywhere who are in a position to further camping as an integral part of public education but are not convinced of its educational worth. The book is brief and concise and gives a persuasive argument for the school camp as a "child-tailored social organization in which youngsters can face their own social problems and experiment with their own solutions."

Man's Loyalties and The American Ideal

Proceedings, Second Annual Symposium
State University of New York
Published by the University, Albany 1

Major addresses delivered at the second annual symposium sponsored

by the State University of New York and held in Rochester on April 6-7, 1951.

Reorganization of School Districts

By Dorothy C. Tompkins
Bureau of Public Administration
University of California, Berkeley 4
November, 1951 59 mimeo. pp. \$1.00

This study of school district reorganization in the United States discusses kinds of districts, methods and problems of reorganization, and recent reorganization developments by states. The bibliography gives a state-by-state, as well as general, listing of references.

Introduction to Lighting

By Howard M. Sharp
Prentice-Hall, Inc., New York
1951 337 pp. \$6.65

The author of this college or industrial training textbook on lighting is assistant professor of engineering at the University of Buffalo; he is a past president of the Illuminating Engineering Society. The text explains basic mathematical concepts on the production, controls, and measurement of light and relates these fundamentals to common lighting problems faced by the practicing engineer.

Comparative Education

Edited by Arthur Henry Moehlman and Joseph S. Roucek
The Dryden Press, New York
1951 630 pp. \$4.50

Arthur Moehlman, co-editor of this symposium and professor of education at the State University of Iowa, makes the following assertion in his introduction to the last chapter: "Each culture's system of education can be a great instrument in solving [mankind's common problems of survival and progress] if humanity is made the measure of all things and if each nation and culture pattern is willing to recognize the numerous educational solutions which are possible and the principle of relativism."

The book's aim is to help a student or researcher know and understand the numerous patterns by which the various cultures have attempted to solve their own peculiar educational problems. It offers detailed interpretations of the educational patterns of seventeen major countries or areas of the world.

A Planning Guide for the High School Library Program

By Frances Henne, Ruth Ersted, And Alice Lohrer
American Library Association, Chicago
1951 140 pp. \$2.00

A bulletin to help librarians survey, evaluate, and re-plan high school library services and facilities.

Report of the Sixth National Conference on Citizenship

Auspices: National Education Association and U. S. Department of Justice
Published by the NEA,
Washington 6, D. C.
1951 137 pp. 50 cents

Proceedings and records of the Sixth National Conference on Citizenship, held May 16-20, 1951, in Washington.

Local Public School Administration

By Benjamin Floyd Pittenger
McGraw-Hill Book Company,
New York
1951 512 pp. \$4.75

From his years of scholarship and experience in education, Professor Pittenger of the University of Texas draws this "administrator's eye-view" of the overall pattern of schools.

His aim is to help administrators in training or service to know local school systems and their proper orientation to state and federal educational activity. The text is wide in scope, yet detailed and thorough. Emphasis is put on administration as a "means not an end," and upon an administrator's continued self-improvement as the "heart" of a school system's vitality.



**Be Your Own
Concessionaire...**

AT YOUR SCHOOL
Sell Pop Corn!



Think of it—a Star Popcorn Machine recently purchased by the Band Mothers of a high school in Ohio—paid for itself in less than 10 days of operation! In Texas, a school is using the Star Sandwich King for quick energy-builders for students at lunch time.

What these schools have done, you can do for your school!

We designed these Star units for easy operation—so that even a student can turn out delicious, tasty sandwiches, hot dogs, or a batch of health-giving popcorn.

They're ideal for school events of all kinds... basketball and football games... class plays... dances.

And, of course, they can add dollars to your class treasury—buy new uniforms for the school team—or help decorate the gym for the senior prom.

And the best news of all—these Star units are priced to fit your school budget.

It all adds up to something you can't afford to pass up!

Write TODAY for full information and prices.

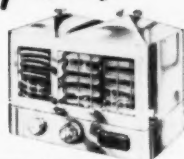
STAR MANUFACTURING COMPANY

ST. LOUIS 20, MISSOURI

Division of Hercules Steel Products Corporation

*"Known Throughout the Industry
for Friendly Service"*

Sell Hot Dogs

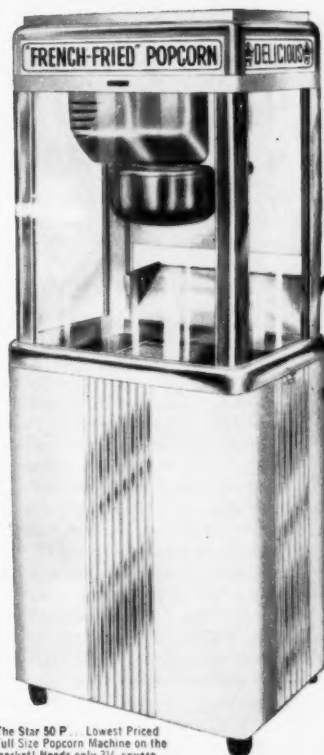


Star Steamro... Low cost, compact counter unit for serving piping hot frankfurters and buns quickly and conveniently.

Sell Sandwiches



Star Sandwich King... Complete light lunch unit—combining griddles, steamer, warming compartment and worktable.

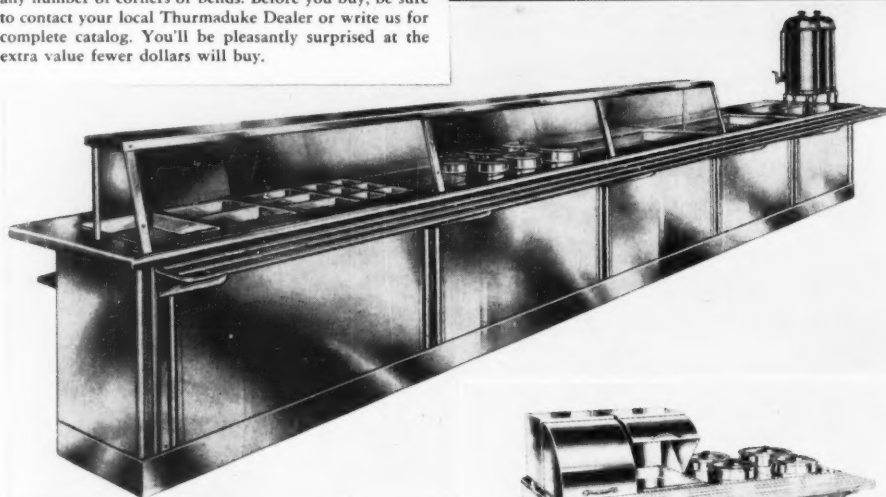


The Star 50 P... Lowest Priced Full Size Popcorn Machine on the market! Needs only 3½ square feet of floor space!



THURMADUKE STANDARD UNIT COUNTERS

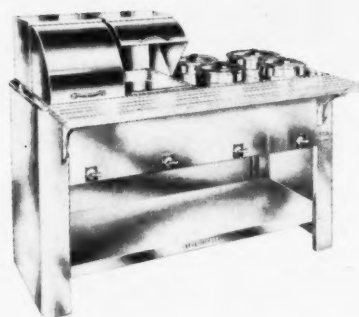
Remember the early automobile? Built almost entirely by hand, it was expensive and nothing to compare in beauty or performance with today's mass produced models. As in the case of automobile advancement, we at THURMADUKE have applied the same principles of standardization and modern production methods to the cafeteria counter with the same results: Greater value, lower cost. Just one exception: We can offer you an almost unlimited variety of combinations to choose from according to your needs: Any choice of units, any length, any number of corners or bends. Before you buy, be sure to contact your local Thurmaduke Dealer or write us for complete catalog. You'll be pleasantly surprised at the extra value fewer dollars will buy.



THURMADUKE STANDARD WATERLESS WARMER

More THURMADUKE Waterless Food Warmers have been built and sold than all other makes combined. Since leadership often attracts imitators, buyers should keep one important fact in mind: There is a big difference between *imitation* and *duplication*. THURMADUKE is the *original* waterless food warmer, designed, engineered and laboratory tested by our staff . . . proved by thousands of owners. The vast experience gained over the years in close co-operation with THURMADUKE owners results in constant improvement in THURMADUKE design and operation. An assurance that each new THURMADUKE is the finest in food warming equipment. Without these years of research, without the staff of experienced THURMADUKE craftsmen, without the modern, well equipped, production geared THURMADUKE plant, no imitator can duplicate THURMADUKE. So remember, don't pay for a THURMADUKE unless you get a THURMADUKE.

THURMADUKE
*GREATER VALUES
THROUGH MODERN
PRODUCTION METHODS*



THERE IS A THURMADUKE DEALER NEAR YOU

Call Him or Write Us For
Complete Catalogs and Specifications

Thurmaduke Standard Food Warmers: Catalog S-7
Thurmaduke Standard Unit Counters: Catalog S-5237

DUKE MANUFACTURING CO., ST. LOUIS 6, MO.

SCHOOL LUNCH

Planning and Equipping the School Lunchroom

SCHOOL systems planning to start a school lunch program or faced with the problem of re-vamping an inadequate and unsatisfactory one must keep in mind several important questions concerning the procedures and responsibilities involved. Whether the planning is being done for one school building or on a statewide basis, it is necessary to know who decides if a lunchroom is needed and how large it is to be; from what fund equipment will be purchased; what the responsibility of the director or supervisor is; how to work best with architects and contractors; what some of the sources of help are.

Responsibility

The responsibility for school lunch policy should rest with the administration. This includes setting up service requirements as well as requirements for instructional areas. The inclusion of food service in a school and the type of lunchroom are determined by the size of the school, the area served by the school district and the economic status of the community. Recommendations should be made to the board of education by the superintendent of schools and the final decision made by the board.

The business manager should be responsible for planning the building, getting sketches from architects and for all operations connected with construction. The food service director should work with the business manager in planning the kitchen and dining room, in making layouts of equipment, and writing specifications. He must also hold conferences with architects and engineers from time to time and be prepared to check floor plans, roughing-in and shop

drawings, location of floor drains, electric outlets and grease traps, the amount of current available and the size of gas inlets. He should watch also for manholes, light panels and heating units which are sometimes placed in the storeroom and make sure that an adequate supply of hot water is available.

Size and Cost

Kitchens should be planned to serve from one-half to two-thirds of the student body; dining rooms to seat approximately one-third of the students. The cost of building and of equipment is determined by the size and type of lunchroom to be provided. Initial cost of large equipment may be charged to general funds or paid from bond money.

General Procedures

The architects should receive from the schoolpeople a manual covering all areas with a table showing dimensions for kitchen, dining room, etc., for schools of different sizes and containing a statement of lunchroom objectives.

The architect will furnish the sketches which are discussed in the conferences and after a plan has been selected he will make a sketch of the kitchen and dining room drawn to one fourth of an inch scale. From this sketch the food service director can prepare a layout drawn to the same scale. The layout, a list of equipment to be purchased, specifications and general roughing-in information should be sent to the architect with a booklet showing cuts of the individual pieces requiring plumbing or electrical connections. Copies of layout and specifications should also be sent to interested bidders and bids let.

In making plans for remodeling,

RUTH D. HECKLER

Director of Central Food Service
Oklahoma City Public Schools
Oklahoma

the space available should be remodeled to conform as nearly as possible to the manual.

For more complete information the food service department should make up a master list which can include areas, lists of necessary equipment and the estimated cost of equipping the lunchroom or rooms. Sources which can be used in making up this list are *The School Cafeteria*, Bryan; *Food Service in Institutions*, West and Wood; and bulletins on lunchroom planning published by the U. S. Department of Agriculture.

Types of Lunchrooms

The type of lunchroom facilities chosen by a particular school system will depend largely on the number of pupils to be served and the amount of money allotted for the lunch program. Generally speaking, there are two systems that can be used in various ways to suit the needs of individual schools.

1. Kitchenette with facilities for a very simple meal. Number served, 50 to 100. Children eat in classrooms. No serving counter provided. Children served from a window and dishes returned to a cart. Food may be prepared in another center. Approximate cost, \$1,000.

2. Lunchroom serving a complete meal. Number served, 100 or more. Children eat in all-purpose or dual-purpose room. In-the-wall tables or folding tables used. Serving counter, ten to fifteen feet long, provided for hot and cold food. Approximate cost, \$60 per person seated for kitchen and serving equipment.



THE *Multiple-Purpose*
FLOOR-MAINTENANCE MACHINE THAT'S
Two Sizes in One!

Here is a floor-maintenance machine that not only can be used for many types of floor care, but also affords the further economy of a machine that is two sizes in one. This 100 Series Finnell, in one of the larger sizes as shown above at left, can be reduced to the small size unit shown in circle.

Note the low, trailer-type design, and how easily the machine goes beneath desks and seats. Thus it is ideal for use in schools. In fact, the dual size feature and low construction of the machine adapt it to use on many floors otherwise inaccessible to machine care.

As easy to handle as a household vacuum cleaner, yet this Finnell is powerful . . . fast . . . and thorough. Mounts a G. E. Drip-Proof Capacitor Motor . . . is equipped with Timken Bearings. And the ruggedly constructed worm drive, housed in an extra-capacity leak-proof gear case, lubricated for 1500 hours, assures smooth, noiseless performance. A precision product throughout. Three sizes: 13, 15, and 18-inch brush diameter.

For demonstration, consultation, or literature, phone or write nearest Finnell Branch or Finnell System, Inc., 3107 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.



With Water Tank and Vacuum for Rug Scrubbing



With Dispenser for Hot Waxing



Interchangeable Brushes, Pads, Sanding Disc



Wire Brushes



Fibre Brushes



Polishing Pad



Steel-Wool Pad



Sanding Disc

FINNELL SYSTEM, INC.

Originators of Power Scrubbing and Polishing Machines



BRANCHES
IN ALL
PRINCIPAL
CITIES

SCHOOL EQUIPMENT *News*

Package Language Courses

SE-201

Recorded on Magnetic Tape



New, low-priced package courses in basic French and Spanish are available for the first time recorded on magnetic tape. Each package course consists of: a basic textbook—the Pocket Book edition of either "French Self-Taught With Pictures" or "Spanish Self-Taught Through Pictures"; a 90-minute tape recording by a native speaker correlated with the text, and with pauses enabling the student to repeat the words and phrases himself; and a workbook, also based on the picture textbook, providing practice in writing the language. The recordings are made on Scotch magnetic tape for dual track tape recorders only.

Since the magnetic tape can be played back thousands of times without loss of quality, the student may use the tape recordings over and over.

Available at extra cost for classroom or laboratory use are sets of six black and white, 35mm, correlated filmstrips, as well as additional copies of the text and workbook.

Distributed by EDUCATIONAL SERVICES, 1702 K St., N. W., Washington, D. C.

Dishwasher

SE-202

In Small-Space Model

For the small kitchen, the fast food service operation, or as a separate unit in large kitchen layouts, the Universal roll top Model D is a com-

act, efficient dishwashing machine.

It is full size and handles 19 $\frac{3}{4}$ " x 19 $\frac{3}{4}$ " racks, yet it can be installed in 2 square feet of floor space and requires only 4 $\frac{1}{2}$ feet for operating height. All tableware is thoroughly washed by a powerful revolving type of relative wash motion with adjustable 2 power operation. Revolving type final rinse above and below dishes assures sparkling, clean, thoroughly sanitized tableware ready for quick re-use.

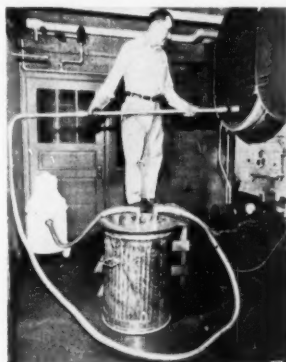
The roll hoods are locked in position while the machine is washing and rinsing. Timed controls can be installed for wash and rinse cycle to reduce supervision to a minimum.

UNIVERSAL DISHWASHING MACHINERY CO., 57 Windsor Pl., Nutley 10, N. J.

Boiler Cleaning Attachment

SE-203

Attaches to Vacuum Cleaner



Any industrial vacuum cleaner can be used for all kinds of extra heavy volume vacuum cleaning including furnace and boiler cleaning, without danger of clogging tank and filters, getting ashes into the vacuum motor and bearings or burning vac hoses with hot clinkers, by attaching the Multi-Clean Add-A-Tank unit.

With the attachments available from Multi-Clean, you simply add any standard 30-gallon or smaller galvanized ash can onto the suction line of your industrial vacuum. It operates on either wet or dry pickup with any brand cleaner.

The unit is satisfactory for cleaning boiler flues, furnace fire boxes and scores of other heavy volume jobs.

MULTI-CLEAN PRODUCTS, INC., St. Paul, Minn.

Spirit Duplicator

SE-204

In Popular Price Field



The new Old Town Copymaker Model 9S duplicator illustrated above has a number of special features. An automatic paper feed with patented single sheet feeding eliminates costly copy paper waste of frequent double or triple sheet feeding. True facsimile reproduction is obtained by inserting a typed, written or printed master in the machine with a quarter reverse turn of the handle. After using, this master may be filed away and reused many times. No stencils, mats, type, ink or gelatins are needed, and the machine will duplicate on any weight stock from 16 lb. to card stock and any size from label or post card to 9" x 14".

The copies are produced at the rate of 145 per minute, face up. Six colors are reproduced at once with one clockwise turn of the drum.

OLD TOWN, INC., 750 Pacific St., Brooklyn 17, N. Y.

(Continued on page 96)

Door Holder

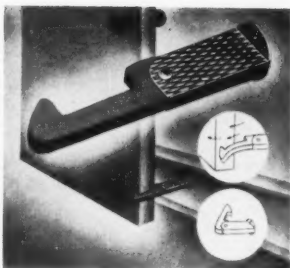
SE-205

Works Automatically

Door Stop-R and Bump-R consists of a solid red rubber hook $\frac{3}{8}$ " thick mounted in an embossed satin stainless steel shell which fastens to the wall molding in a position to hold the edge of the door.

The unit works automatically—as the door is pushed back, it hits the inner heel of the rubber hook, the hook straightens out, and holds the door fast. When the hook is not needed for holding the door, it may be pushed back to act as a door bumper and wall protector.

Length is $6\frac{1}{4}$ " when fully open or 3" when the hook is pushed back. The



Stop-R holds doors as thick as 2". It is easy to mount, leaves no marks, and will stand up under vigorous use.

HOBBY HILL, 14 N. Michigan Ave., Chicago 2, Ill.

Floor Machine

SE-206

Scrubs, Waxes, Polishes



The new Clarke P-11 Floor Maintainer is designed to scrub, wax, polish, and steel wool floors in schools.

The operator needs only to guide this easily controlled machine. Fingertip access to a completely automatic safety switch allows instant stop and go control. Wheels that are self-retracting when the machine is in operating position provide complete mobility. A 90° arc of shaft adjustment allows use of the P-11 under low-set furniture and fixtures. A new, noiseless, positive drive mechanism completely eliminates oil leaks, slipping belts, and chains that break. The unit is powered by a $\frac{1}{2}$ h.p. Constant Duty motor that provides an abundance of power under the heaviest use conditions.

CLARKE SANDING MACHINE CO., Muskegon, Mich.

Steel Bleachers

SE-207

Fabricated for Safety

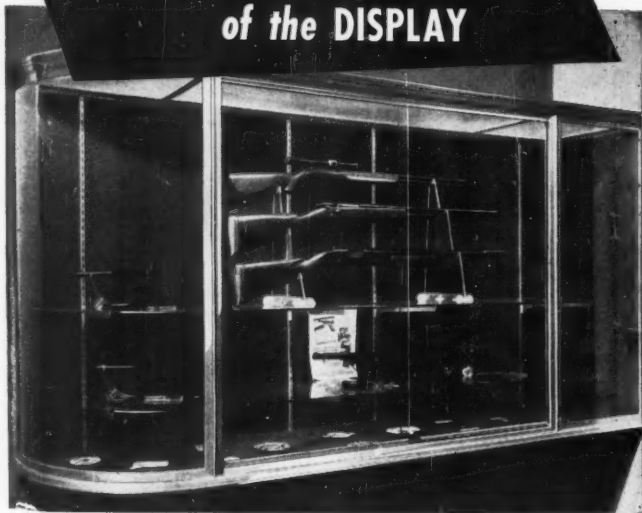
Game-time, Inc. has announced the addition of a new line of safe, economical, and completely portable steel bleachers to their line of recreational equipment. Three bleacher units, each 12' long and six feet apart, have been combined with an extra 12' of seat and foot board. This combination gives a total linear seating capacity of 48', and effects a cost saving of 25%.

As a safety factor, the bleachers are fabricated from high-grade steel, factory-tested to sustain more than any maximum load possible under any seating condition.

The bleachers are both portable and demountable and can be stored and set up with relative ease.

GAME-TIME, INC., Litchfield, Mich.

THE CASE is an Important Part of the DISPLAY



... and Michaels "Time-Tight" exhibit cases provide that all-important part. They are designed and constructed for maximum visibility, and actually accentuate the beauty of exhibits. Furthermore, handling and theft as well as the ingress of dirt, vermin and moisture are reduced to a minimum.

"Time-Tight" cases are made in table, aisle, wall, corner, suspended and recessed styles, and in any practical size. If it is necessary to meet specific requirements, Michaels will build special cases to exact specifications. Innerlocking Frames, exclusive with Michaels; fully mitered intersections; no screws exposed on the face of frames, are a few of their outstanding features.

"Time-Tight" cases are used extensively in museums, art galleries, libraries, universities, colleges, schools, science laboratories, for industrial exhibits, and various related types of display rooms.

Write for fully illustrated literature.

THE MICHAELS ART BRONZE CO., INC.
243 COURT STREET, COVINGTON, KENTUCKY

Manufacturers since 1870 of many products in Bronze, Aluminum and other metals

Folding TABLES



Ample leg room at both ends and sides of table. All Steel chassis riveted (not screwed) to a complete $\frac{3}{8}$ " Plywood top (not just a frame) for extra ruggedness, with $\frac{1}{16}$ " Formica, $\frac{1}{8}$ " Masonite Tempered Presdwood or $\frac{1}{4}$ " Linoleum glued to Plywood, giving a smooth, hard durable surface with no rivets showing. Metal molding around edge. Table folds compactly and each leg is braced securely.

Standard sizes 30" x 72" and 30" x 96".
Standard heights 30" and 29"—lower for young children.

Note—also comes with Plywood Tops only.

If It Folds—Ask Howe

HOWE FOLDING FURNITURE, Inc.

1 PARK AVENUE

NEW YORK, N. Y.

SE-44



"SERV-MOR"
HANDLES MORE GARMENTS
IN LESS SPACE

**A STURDY
WARDROBE UNIT**

shipped assembled — electric welded joints



SPACE
SAVER
UNIT

Serv-Mor has everything... It's neat, attractive, strong, spacious, compact! Handles more garments in less space for offices, schools, institutions, churches, motels, hotels, club-houses, restaurants, halls. Sold in standard and custom sized units, floor models and wall models. Wall units can be mounted any height from floor for best serving school children or grown-ups. Write for complete information.



WALL UNITS



These racks built
in 36 garment
units... buy as
many as needed!

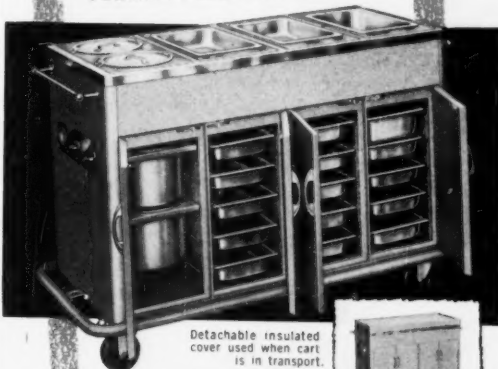
APPLIANCE PRODUCTS CO.
2034 JENIFER STREET • MADISON 4, WISCONSIN



SAVE THOUSANDS
of DOLLARS ANNUALLY* with

NACO

PORTABLE ELECTRIC FOOD CARTS



Detachable insulated
cover used when cart
is in transport.

**HOT MEALS
from ONE KITCHEN**

An entirely new idea for school cafeterias... with Naco Portable Carts all meals may be cooked in one central kitchen, then delivered to outlying areas. Entire hot meals including salads, soup, entree, and vegetables may be served.

Food is kept oven-hot in three insulated "hot" compartments while salads and other "cool" foods may be refrigerated with dry ice or kept at room temperature. Serves 200 to 300 meals, (capacity 222 quarts of food), and is designed to fit into cafeteria serving line. Just plug in electric cord and food stays hot. Holds 18 serving pans or 18 fireless cooker pots in hot section and 6 pans in cold section.

Eliminates high investment required for individual kitchens plus cooking personnel in each school, lowering your food service costs appreciably. (NACO FOOD CART is ideal for restaurant and hotel banquet service).

NACO PORTABLE FOOD CARTS...

- Lower costs
- Hot meals
- Dry heat
- Less food waste
- Insulated sections
- Special 'cool' section
- 200-300 meal capacity
- Easy to clean
- Less maintenance expense
- Portability—Just roll in
- No special wiring
- Sectional heat regulators

***WANT MORE INFORMATION?**

For complete information on annual savings with NACO write us.



ATLAS DIVISION
NATIONAL CORNICE WORKS
1323 Channing Street • Los Angeles 21, Calif.

Stencil Sheets

SE-208

Orange-Colored for High Visibility

A new orange-colored multi-purpose mimeograph stencil sheet assembly is available in four sizes. In legal and letter sizes, with or without satin finish film-topping, these sheets give top quality copies, long runs on the mimeograph with such quick drying inks as Dick's Contac-Dri, and extremely long runs with the oil base inks.

A new black cushion sheet is used

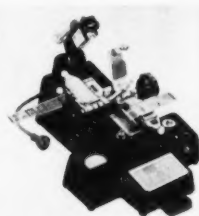
with this assembly. The dense black of the cushion contrasts extremely well with the orange color of the stencil and provides very high visibility while the stencil is in the typewriter. This new cushion has a glossy jet black plastic coating on one side and an entirely different type of coating on the reverse side. The glossy coating eliminates the need for burnishing errors.

The reverse side coating produces a proof copy on the backing sheet. A. B. Dick Co., 5700 W. Touhy St., Chicago 31, Ill.

Film Splicer

SE-209

For Microfilm, Motion Picture Film



The Presto-Splicer Pro Model will splice 16, 35, or 70mm microfilm, motion picture magnetic film, roll film and X-ray film without scraping or the use of cement. It achieves the only splice which will hold up even under the hot developing process which is used for high-speed production of TV newsreel and Ultra-fax film.

The splicer handles all types of safety film bases, including Tri-acetate stock. It can be used for raw stock, short ends and processing of amateur film. Its use eliminates the need for clips or staples and gives perfect frame line splices. Interchangeable heads make the unit adaptable for both 35mm and 16mm within a matter of 30 seconds, and without the use of tools.

PRESTOSEAL MFG. CORP., 38-01 Queens Blvd., Long Island City 1, N. Y.

Ventilating Shades

SE-210

Control Both Light, Air

Ra-Tox wood-slat ventilating shades are made of strong, resilient, kiln-dried basswood slats which are woven together with heavy-duty seine twine into a rugged, durable fabric. These shades, which are suggested for use in school dormitories, are smooth-finished and supplied in a wide range of attractive colors or in natural finish. The beveled edge slats direct light upward, diffusing strong outside light and providing protection from glare. Wood construction of the shade, acting as a natural insulator, blocks heat transference and reduces room temperatures up to 14° in the summer, yet allows 30% to 40% more passage of light and air than afforded by cloth shades. In winter-time, the wood construction blocks heat loss through the window, lowering heating costs.

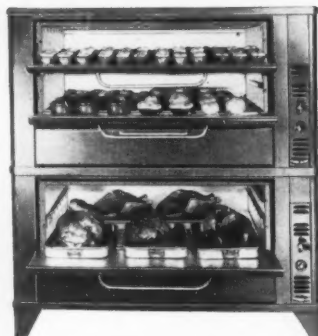
THE HOUGH SHADE CORP., Janesville, Wis.

BLODGETT FLEXIBILITY PROVIDES

MENU VARIETY



You can roast, bake and do general oven cookery in a Blodgett oven because of its flexibility and capacity. Each section is separately controlled for proper heat. Foods requiring different temperatures are cooked in different decks at the same time; meat might be roasted in one section at 300 F; baking done in another at 425 F; and general oven cookery in still another at 350 F. A Blodgett is continually producing for you because it can take care of as much as 70% of the cooked food items on your menu.



BAKING

One deck holds twelve 10 in. pie tins or two 18 x 26 bun pans.

COOKING

One deck holds as many as 116 casseroles or comparative capacity.

ROASTING

One deck has capacity for five 25 lb. turkeys or equal capacity.

All at the Same Time!

Blodgett makes ovens from its "Basic Three" design which provides the units to make 24 models.

THE G. S. **BLODGETT** CO., INC.

50 LAKESIDE AVE., BURLINGTON, VERMONT

SE-48



perfect balance

virco

folding chairs



This sturdy chair won't tip over! Durable tubular steel frame and formed plywood seat assure **years** of service. Fully enclosed hinges prevent pinching, snagging. Contoured for maximum comfort, lightweight for easy handling. Folds smoothly, stacks compactly. Also available in all-metal and with upholstered seats. Write for free catalog.

Dealers Note: Some areas still available for qualified dealers. Write for information.



IRCO MFG. CORPORATION
15134 SOUTH VERMONT AVE.

MAILING ADDRESS: P.O. Box 846, Station H, Los Angeles 44, California

SE-49



BRING YOUR CLASSROOM UP TO PAR!
Change your old black slate and composition boards to green

by using Endur Green Resurfacer, easy and economical; produces a brand new long lasting smooth writing surface. Available in light and dark green. For particulars including other special Endur finishes for schools contact your School Supplier or write Endur Paint Company, 46 Cornhill, Boston.



ENDUR PAINT COMPANY

46 CORNHILL • BOSTON 6, MASSACHUSETTS

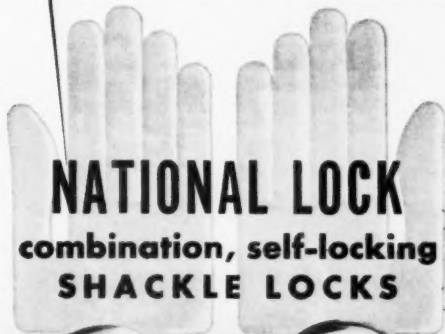
SE-50



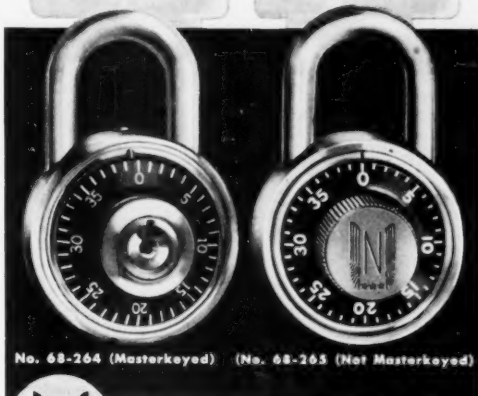
A PAIR OF HELPING HANDS

**Offering dependable
long-term protection
for school lockers**

The result of National Lock Company's 48 years of lock manufacturing experience, these fine shackle locks are extensively used in schools, colleges and universities the nation over. Their rugged steel construction, outstanding beauty, high visibility dial and other features make sense to a lot of practical buyers, who want top quality at fair price. Write on your school letterhead and ask for Free sample lock.



NATIONAL LOCK
**combination, self-locking
SHACKLE LOCKS**



No. 68-264 (Masterkeyed)

(No. 68-265 (Not Masterkeyed))



NATIONAL LOCK COMPANY

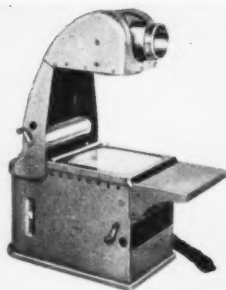
Rockford, Illinois • Lock Division

Overhead Projector SE-211

In Lightceight Model

The Junior Vu-Graph, a light-weight projector weighing only 23 lbs., projects transparencies prepared from maps, photographs, drawings, sketches, etc. onto a screen while the speaker faces his class and paces his lecture as he wishes, in a fully lighted room.

A unique, weight-saving optical system, comprising an acrylic fresnel condensing system and a system of objectives especially designed for this compact instrument, assures bright,



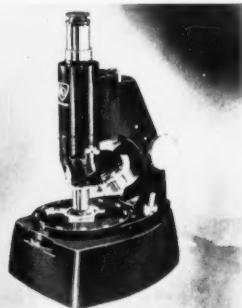
crisp pictures. The 500-watt lamp is effectively cooled by forced draft from a motor-driven centrifugal blower.

CHARLES BESELER Co., Newark, N. J.

SE-212

Polarizing Microscope

Costs About 1/3 of Current Models



The new P45 polarizing microscope is used for crystallography, chemical microscopy, and petrography in education. It utilizes quality AO Spencer optics and precision construction throughout. All worthwhile features are included for teaching and laboratory work at magnifications up to 430X and the cost is only one-third that of existing instruments.

Built into the completely enclosed substage is a permanently aligned "full field" illuminator providing excellent optical performance with apertures up to 0.66. Moving the microscope does not disturb illumination or other adjustments. The single, large ring-type stage clip accommodates 45mm and 75mm slides.

AMERICAN OPTICAL Co., INSTRUMENT DIV., Buffalo 15, N. Y.

How CLEANLINESS IS AUTOMATIC WITH WASTE RECEPTACLES

Everybody is a member of your cleaning department by conveniently locating Bennett Built Self-Closing Receptacles to invite their use for economical neatness and sanitation. Put them to work for you today.

ONLY BENNETT BUILT WASTE RECEPTACLES HAVE ALL THESE FEATURES:

- Stainless steel feet
- Extra heavy-gage, corrosion-resistant steel
- All-welded construction
- Smooth surface—no catching or tearing of clothes
- Reinforced rounded corners for strength and appearance.
- Counter-balanced self-closing, independent doors stay closed to provide greater sanitation and reduce fire hazards
- Baked white or green enamel finish

Built for hard usage make these receptacles a natural "buy". Write for fully illustrated catalog.

Below shows how easy it is to remove Onaberg bags or galvanized liners.



ALSO PRODUCERS OF PAPER TOWEL AND TISSUE PAPER DISPENSERS



Single fold junior paper towel dispensers.



No. 500 and No. 600 tissue paper dispensers for single fold and double fold respectively.



Double fold paper towel dispensers.

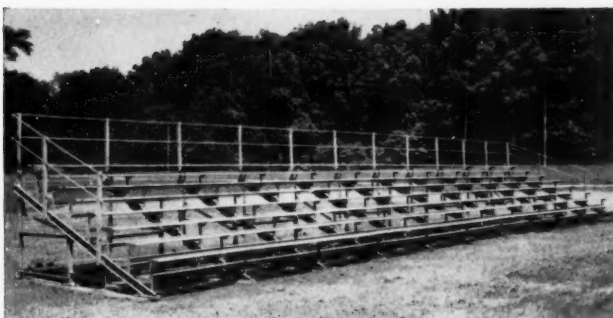
BENNETT MANUFACTURING CO., ALDEN, N. Y.

Filing Cabinets SE-213

Engineered for Greater Rigidity

The 6600 Series of metal filing cabinets feature smart styling with emphasis on the streamlined handles of which automatic drawer latches are an integral part. Other features include non-jamming side-locking follower blocks; torque plates welded onto upper corners of drawer openings for greater rigidity; and sturdy ball bearing suspension slides.

PEERLESS STEEL EQUIPMENT Co., 6616 Hasbrook Ave., Philadelphia 11, Pa.



SNYDER STEEL GRANDSTANDS AND BLEACHERS

Snyder Steel Stands are designed, engineered and constructed to insure safe seating so, when planning any installation regardless of size, specify Snyder Steel Stands. Estimate or help in planning available to you at any time without obligation.

For further information write:

SNYDER TANK CORPORATION

P. O. Box 14, Buffalo 5, N. Y.
P. O. Box 2390, Birmingham 1, Ala.

PORTABLE • SECTIONAL • PERMANENT

SE-53

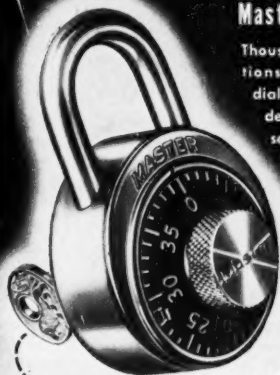
Preferred by School Buyers Everywhere!

Master No. 1525

Thousands of combinations, with 3-number dialing, protect the student — yet only one school-owned master key opens every locker.

Master No. 1500

Same as No. 1525, but without key-control.



FREE — 4 page folder with complete information on both No. 1525 and No. 1500. Write today to Dept. 8.

Master Lock Company.
Milwaukee 45, Wis.
World's Leading Padlock Manufacturers

SE-54



BEAUTIFUL - LASTING

SAFE - ECONOMICAL

Rubber
Armor-Treds

**CLIP AND
MAIL
NOW**

Six marbled colors and plain black from which to choose. ARMOR-TREDS are 1/4" thick, 12 1/2" deep, in widths of 24", 31", 36", 48" and 62". The ARMOR-TILES, for landings and ramps, are 24" x 26" in similar colors and surface design. Smooth riser material of matching colors can be supplied.

AMERICAN FLOOR PRODUCTS COMPANY
4920 Wisconsin Ave., N. W., Washington 16, D. C.

Please send me catalogue and prices on your entire line of mats and treads

NAME

FIRM

ADDRESS

Floor Treatment

SE-214

Is Anti-Slip, Dries Quickly

Grip-Kote is the name of a new anti-slip floor treatment. It contains enough carnauba wax so that it responds to buffing, but it eliminates the excessive plant qualities of wax. It dries in 20 minutes with a high, hard gloss, and is non-tacky, water-resistant, and long-wearing.

Underwriters' Laboratories give it a coefficient of friction rating of 0.72 on asphalt tile, 0.84 on linoleum, and 0.87 on rubber tile, whereas a rating of 0.50 is considered anti-slip.

CONTINENTAL CAR-NA-VAR CORP.,
Brazil, Ind.

Tape Recorder

SE-215

Has Low Wow and Flutter



A series of six new tape recorders

with fast forward speed and new duo-motor drive has been announced by Masco Electronic Sales Corp. Their full frequency range provides a professional tone quality unequalled in any but the most costly recorders.

In conjunction with the duo-motor drive, there is a separate idler take-up mechanism for lowest wow and flutter (0.3%). They have dual-speed 3.75 or 7.50 inches per second, with automatic amplifier equalization for each speed. The dual track feature permits up to two hours recording on a seven-inch reel.

Of the six models, the 52R, 52LR, and 52CR have a built-in AM Tuner; 52 and 52R have a carrying case; 52C and 52CR have self-contained metal cover; and 52L and 52LR have no cover.

MASCO ELECTRONIC SALES CORP.,
Long Island City, N. Y.

SE-35

the window that went to college

**THE
ALL-ALUMINUM
MIAMI
AWNING WINDOW**

Merrick Building
University of
Miami
Robt. M. Little
A. I. A.

Needs no painting, cannot rust, rot—
is termite-proof and built to
last a lifetime. Windows open and
close quickly and easily.
Vents won't warp, swell or stick.
Heavy gauge aluminum (63-S15) sec-
tions are built for long, hard usage.
Weatherstripping, optional.
These factors assure
LOW MAINTENANCE.

Air Infiltration Tests Taken by Pittsburgh Testing Laboratories

Member — Aluminum Window Manufacturers Association

For further information, see Sweet's Architectural File 17A
or — write, wire or phone Miami Window Corp., Dept. H S-7.

MIAMI WINDOW CORPORATION

5200 N. W. 37th Avenue, Miami, Florida

**MIAMI
Awning
WINDOW**

SE-216

Wet-Dry Vacuum Cleaner

Is Sturdily Constructed



The Finnell Model 10B Wet & Dry Vacuum Cleaner features a by-pass motor, assurance against grounds when picking up suds or dust. A separate fan keeps the motor cool during prolonged periods of operation.

The machine has a 1 hp motor, operates quietly, and weighs only 53 lbs. It is easily moved about since it rides on ball bearing swivel casters. Twelve gallon wet capacity and 1 1/4 bushels dry assure long operation before emptying is required. A large number of accessory tools equip the 10B for the many hard-to-get-at places such as overhead pipes, grills, venetian blinds, air filters, etc.

Although light in weight for portability, the 10B is sturdily constructed for heavy-duty work. Vinylite finish inside resists corrosion.

FINNELL SYSTEM, INC., 3100 East St., Elkhart, Ind.

School Equipment Index—July, 1952

This index covers products and services referred to in both advertisements and editorial reviews in this issue. To find a particular advertisement or editorial listing, consult the key (SE number) which precedes the listing, and which will also be found above the advertisement or listing in the body of the magazine.

If further information concerning any of these products is desired, it will be sent without charge or obligation. Simply circle the identifying numbers on the back of the business reply card below and mail it to us.

SE

PRODUCTS

- 1—Southern Equipment Seco-Matic Hot Food Tables, Urns
- 2—Minneapolis Honeywell Heating, Ventilating Controls
- 3—Johns-Manville Terraflex Plastic-Asbestos Floor Tile
- 4—Finnell Floor Maintenance Machine
- 5—Hotpoint Kitchen-Laundry Planning Service
- 6—Wakefield Incandescent Luminaires
- 7—Herman Nelson Draft/Stop Unit Ventilators
- 9—American City Bureau Fund-Raising Campaigns
- 10—IBM Electric Typewriters
- 11—Trane Unit Ventilators
- 12—RCA Victor Records
- 13—Skilsaw Oscillating Sander
- 14—Curtis Light and Sound Conditioning System
- 15—Horn Flexible Gymnasium Planning System with Folding Gymseats, Partitions
- 16—Multi-Clean Floor Maintenance Method
- 17—Powers Thermostatic Shower Mixers
- 18—Shwayder Samson Folding Chairs
- 19—Breuer Tornado Floor Machines
- 20—Medart Lockers
- 21—National School Multi-Mode Trapezoidal Table
- 22—Up-Right Scaffolds
- 23—Irwin Seating Equipment
- 24—Wayne School Bus Bodies
- 25—Barber-Colman Wardrobe Door
- 27—Nesbitt Syncretizer with Wind-Of-Line Radiation
- 28—American Floor Maintenance Machine
- 29—Michaels Art Bronze Display Cases
- 30—Rowles Classroom Seating

SE

- 31—Blodgett Ovens
- 32—Roddis G. E. Textolite Plastic Desk Tops
- 33—Bennett Waste Receptacles
- 34—Star Popcorn Machines, Vending Machines
- 35—Miami All-Aluminum Awning Window
- 36—Guth Lighting
- 37—Virginia Metal Library Stacks, Equipment
- 38—Duke Thurmaduke Waterless Food Warmers
- 39—Solar-Sturges Self-Closing Waste Receptacle
- 40—Dudley Combination Locks
- 41—Berlin Chapman Portable Bleachers
- 42—Hild Portable Vacuum
- 43—Howe Folding Tables
- 44—Appliance Wardrobe Unit

SE

- 45—National Cornice Portable Electric Food Carts
- 46—Sico Portable Steel Bleachers
- 47—Sexauer Faucet Washers
- 48—Virco Folding Chairs
- 49—Endur Green Resurfacers for Chalkboards
- 50—National Combination Locks
- 51—Hearne's World Maps
- 52—Snyder Steel Grandstands and Bleachers
- 53—Master Combination Locks
- 54—American Floor Rubber Armor-Treds for Stairs
- 55—Nestle Seasoning and Granulated Bouillon Cubes
- 56—Gougler Keyless Locks
- 57—Edward Don Equipment, Furnishings, Supplies

FIRST CLASS
Permit No. 280
(Sec. 510 P. L. & E.)
New York, N.Y.

BUSINESS REPLY CARD
No Postage Stamp Necessary if Mailed in the United States

2c POSTAGE WILL BE PAID BY

THE SCHOOL EXECUTIVE

470 FOURTH AVENUE

NEW YORK 16, N. Y.

SE

- 58—Vogel-Peterson Portable Steel Coat Racks
 59—Lawlor Mopping Tanks
 60—Rauland Sound and Intercommunication Systems
 61—Draper Darkening and Shading Manual
 62—Geerpres Mop Wringers
 63—Lowerator China Dispensers, Milk Dispensers
 64—Ox Fibre Brooms
 65—Dayton Safety Ladders
 66—Mitchell Folding Stands
 67—Fullergrip Brush for Floor Sweepers
 68—Ionia Folding Chairs
 69—Brillo Floor Pads
 70—Empire Varnish Floor Products
 71—Keyes Plastic Tableware, Trays
 72—Tremco Floor Products
 77—Given Waste Pulverizer
 78—Flour City Scrubbing Machine Brushes
 79—American Seating Folding Chairs
 80—Superior Electric Light Dimming Equipment
 81—Griggs School Seating
 82—Beckley-Cardy School Buyer's Guide
 83—Stacor Drawing Table

SE

- 84—American Airplane Tables
 85—Sanymetal Toilet Compartments
 86—Richards-Wilcox Folded-Way Partitions
 87—Teekorator Incinerators
 88—Knight Bros. Tubular Steel Desk and Chair Legs for Modernizing School Furniture
 89—White Mop Wringers
 90—Old Town Duplicators
 93—Pereny Electric Kilns
 94—Moore Key Control
 95—Norcor Tubular Desks and Chairs
 96—Claridge Chalkboards
 97—Brush Soundmirror Tape Recorder
 98—Merchandising and Sales Opportunity
 99—Naden Scoreboards
 100—Institutional Sales—Steel Folding Legs
 201—Educational Services Package Language Courses
 202—Universal Dishwasher
 203—Multi-Clean Boiler Cleaning Attachment
 204—Old Town Spirit Duplicator
 205—Hobby Hill Door Holder
 206—Clarke Floor Machine
 207—Game-Time Steel Bleachers
 208—Dick Stencil Sheets

SE

- 209—Prestoseal Film Splicer
 210—Hough Ventilating Shades
 211—Beseler Overhead Projector
 212—American Optical Polarizing Microscope
 213—Peerless Steel Filing Cabinets
 214—Continental Car-Na-Var Floor Treatment
 215—Masco Tape Recorder
 216—Finnell Wet-Dry Vacuum Cleaner
 217—General Scientific Pouring Spout, Tilter
 218—Consolidated Power Roller
 219—Knight Desk, Chair Frames
 220—Ditto Duplicator
 221—Paramount Roof Treatment

MANUFACTURERS' CATALOGS

- 301—A. C. Horn Repairing, Maintaining Floors
 302—Pilibrico Linings for Fireboxes
 303—Kliegl Lighting Control Boards
 304—Vulcan Restaurant Ranges
 305—Preferred Utilities Steam Generator
 306—Given Waste Pulverizer

AUDIO-VISUAL AIDS

- 307—Ideal Educational Film Catalog
 308—Encyclopaedia Britannica West Indian Islands Film
 309—Bailey Film on Driver Education
 310—Encyclopaedia Britannica Film on Laplanders
 311—United World Free Film Catalog
 312—British Information Services Film on Modern Britain
 313—Film Publishers Atomic Energy Filmstrip
 314—Modern School Planning (American Air Filter Co., Herman Nelson Div.)
 315—Geometry (Knowledge Builders)
 316—Silk Screen Printing (Bailey Films)
 317—Our Community (Encyclopaedia Britannica Films)
 318—Declaration of Independence (Bailey Films)
 319—Coronet Film Catalog
 320—English Composition (Knowledge Builders)

THE SCHOOL EXECUTIVE
SCHOOL EQUIPMENT NEWS, 470 Fourth Ave., New York 16

July, 1952

Please send me the manufacturers' literature for the numbers I have circled below on the understanding that it will be sent without charge or obligation.

1	2	3	4	5	6	7	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	27	28	29	30	31	
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
47	48	49	50	51	52	53	54	55	56	57	58	59	60	61
62	63	64	65	66	67	68	69	70	71	72	77	78	79	80
81	82	83	84	85	86	87	88	89	90	93	94	95	96	97
98	99	100	201	202	203	204	205	206	207	208	209	210	211	212
213	214	215	216	217	218	219	220	221	301	302	303	304	305	306
307	308	309	310	311	312	313	314	315	316	317	318	319	320	

Also send literature on

NAME POSITION

INSTITUTION

ADDRESS



★
magic...
is the
word
for
maggi's



MAGGI'S SEASONING

Simply add a few dashes to your soups, stews, gravies, vegetables, and meats. Presto! . . . it brings out all the subtle hidden flavors and you have a dish fit for a king.

MAGGI'S SEASONING and GRANULATED BOUILLON CUBES



MAGGI'S GRANULATED BOUILLON CUBES

Try blending a tablespoon or two in your gravies, sauces, vegetables, stews . . . it enriches the natural flavors and you have a dish out of this world. Also makes an excellent meat stock and an instant beverage.

TWO FAMOUS FLAVOR FAVORITES

MAGGI'S SEASONING . . . tested and proved for 50 years. Escoffier called it "The perfect adjunct to the kitchen." Available in quart size bottles.

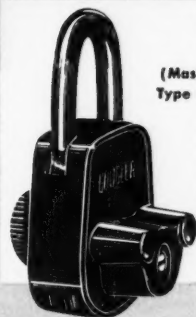
MAGGI'S GRANULATED BOUILLON . . . a highly concentrated quality "bouillon", packed in three convenient sizes—1, 2, and 5 lb. tins.

SEND FOR NEW BOOKLET . . .
The Nestlé Company, Inc., White Plains, N. Y.

SE-56

it's the **CLICK**
that counts

FOR —
**ECONOMY
DURABILITY
GUARANTEED
WORKMANSHIP-
MATERIAL
THE "FEEL" OF
SECURITY**



(Master Key
Type Shown)

More schools are finding that the lock with the "click" offers the utmost in security — yet the quickest and easiest to operate. Available with or without master key. Locks are numbered serially. Service records furnished free.

Write for information

C. L. GOUGLER KEYLESS LOCK CO.
705-769 Lake St., Dept. 3, Kent, Ohio

SE-57

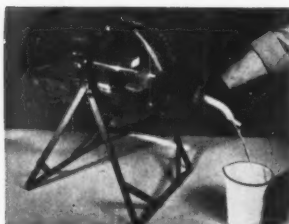
EDWARD DON & COMPANY

HEADQUARTERS
for
EQUIPMENT, FURNISHINGS AND SUPPLIES

EDWARD DON & COMPANY
2201 S. LA SALLE ST. Dept. 23 CHICAGO 16, ILL.

Pouring Spout, Tilter SE-217

Pours Liquids Safely, Easily



The GS pouring spout and tilter provides a safe and easy method of

pouring liquids into smaller containers. Built on scientific lines, it prevents accidents and saves materials from spilling, splashing, etc.

A chain holds the bottle in position when tilted. The cradle is of steel and all members are riveted or welded to insure a strong and durable unit. The safety air vent pouring spout fits any size bottle and assures a smooth, even flow without spurts or splashes.

This unit is made of a special acid-resistant rubber and plastic tubing for longer life.

GENERAL SCIENTIFIC EQUIPMENT Co., 2700 W. Huntingdon St., Philadelphia 32, Pa.

Power Roller

SE-218

Is Easily Transported



Con-Sol's new power roller keeps athletic fields in condition with a minimum of trouble. It is available in two models: a lawn roller with weight adjustable between 300 and 1200 lbs., and an all-purpose roller, with weight adjustable between 375 and 1400 lbs. The latter model carries a sprinkler tank with a capacity of 15 gallons of water.

Maintenance people will like the fact that its weight can easily be adjusted to suit soil conditions and rolling requirements. Operation is unusually simple and features convenient grouping of controls on the handle bar, a tiller-type steering bar, and a single lever for both forward and reverse. Substituting a caster-type roller for the sulky roller gives perfect maneuverability for rolling around shrubbery plantings.

An economical 2½ hp Briggs & Stratton engine provides ample power under all conditions.

CONSOLIDATED INDUSTRIES, INC., West Cheshire, Conn.

TEST YOURSELF!

SE-37

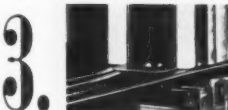
Do you know the answers to these questions on library stacks and equipment?



Q. Will VMP steel bookstacks and shelves warp, sag, or crack?



Q. How important to efficient library function are hinged shelves?



Q. Does VMP U-BAR shelving actually add to the life of books?



Q. Is it more advantageous to utilize the services of the world's largest manufacturer of bookstack, shelving and equipment?



Q. Is VMP steel library equipment more expensive?

answers

1. No! Precision-engineered VMP steel construction can never warp, sag, or crack.
2. Most important. Exclusive VMP design hinged shelves add vital storage and handling flexibility—save time and money.
3. Yes! VMP's modern U-BAR shelves provide better ventilation allow air to circulate freely to all parts of books. Books last longer, never rot!
4. Yes—for every kind of job. Virginia Metal Products offers the benefit of its vast experience in the solution of all technical questions concerning free-standing or multi-tier bookstacks, conveyor systems, etc.
5. No! VMP equipment actually costs far less! In fact, about half the cost of wood shelving!

FREE: 8-page brochure describing VMP modern functional library bookstack equipment, complete with illustrations, shelf and stack data—a valuable asset to all librarians and architects. For your free copy, just write "Bookstack" on your letterhead or card and mail to Dept. SE-7.



VIRGINIA METAL PRODUCTS CORP.

1112 First National Bank Building
Pittsburgh 22, Pa.

Desk, Chair Frames SE-219

For Modernizing Old Furniture

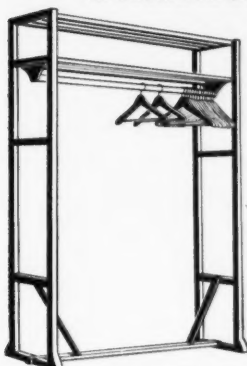
The Knight Bros. Mfg. Co. has enlarged their facilities so that they are now able to offer, on a nation-wide basis, all-welded tubular steel desk and chair frames for converting old school furniture into modern, movable, functional units.

They will make frames to fit your present furniture at a fraction of the cost of new units. These frames or legs can be installed in a few minutes by simply removing the legs and pedestals and screwing on the new frames. The old legs and pedestals can be sold for scrap to help defray the cost of the new legs.

Available in beige, baked enamel finish and metal-tipped, rubber-cushioned glides.

KNIGHT BROS. MFG. CO., 7 Harris Court, Worcester 8, Mass.

Checkerette Portable Steel Coat Racks



Set up in a few minutes anywhere, without bolts, nuts or tools, these light, strong rigid racks provide a 4 ft. bar for coat hangers and 2 ventilated hat shelves.

Answers the "wraps problem", for classrooms, school cafeterias, PTA meetings etc. Ideal for shop coats, for drying athletic gear or storing academic robes, band uniforms etc. (with shelf assembled in top position, bar will take longest garment bags.)

Sturdy, rigid in use, these racks will stand up for years as permanent installations or can be quickly disassembled and stored in small space . . . always available

for emergency use. They are strongly built of heavy gauge steel, electrically welded. (When specified—16 double hooks will be provided that snap over hanger bar to accommodate 32 coats or laboratory aprons).

Write for Circular CT-51

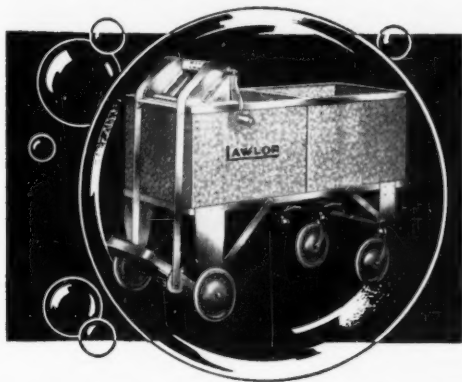


VOGEL - PETERSON CO.
624 So. Michigan Ave., Chicago 5, Ill.

SE-59

LAWLOR MOPPING TANKS

Leads the Field in Ruggedness and Service



8 styles and sizes of all steel, acetylene welded tanks • 2 or 3 compartments • 30, 60 or 65 gallon capacities • hand or foot pressure wringers • perforated roll wringers • special drain shut-offs • hot dipped, galvanized chassis and frames • rubber tired, cadmium plated steel wheels.

Write for Catalog of Mopping Tanks, Wringers, Floor Scrub Wax-Polishing Machines for every kind and size floor.



S. C. LAWLOR COMPANY

Quality Floor Equipment for 50 Years
128 N. Aberdeen St., Chicago 7, Ill.

THE SCHOOL EXECUTIVE for JULY, 1952

Rauland CENTRALIZED S81 RADIO-SOUND SYSTEM



**SIMPLIFIES ADMINISTRATION
STIMULATES CLASSROOM LEARNING
PROVIDES COMPLETE PROGRAM FACILITIES**

The RAULAND S81 Centralized Sound System provides complete program facilities (Radio, Phonograph, Microphone and Intercommunication) to bring maximum benefits to your school. Here is the means for effective administrative control from a single, central point. Permits instant communication with any or all classrooms; provides emergency call (for fire drills, accidents, etc.). Unsurpassed as an educational aid, the S81 provides selected FM and AM radio broadcasts for instructive purposes; plays and distributes recordings and transcriptions; makes possible broadcasts of school dramatic programs and activities; serves effectively as an aid for specialized instruction in musical appreciation, languages, and dramatics. Versatile in performance, dependably proved in operation, the RAULAND S81 Centralized Sound System is priced within the budget of the average school.

The RAULAND S81 System has ALL these features:

- **Dual Channel Facilities:** One Channel permits distribution of radio, phonograph or microphone programs to any selected room or to all rooms, while second Channel permits simultaneous intercommunication with any room as desired. Also available with speech origination from classrooms, or as secret system with complete privacy, or with monitoring tone signal.
- **FM-AM Radio:** Covers AM (Standard Broadcast), and full FM band (including civic educational frequencies).
- **Three-Speed Phonograph:** Plays records of ALL speeds and sizes, including 16-inch educational transcriptions.
- **Microphone Facility:** Permits distribution of microphone program from any desired location, as well as from central control cabinet.
- **Serves Up to 80 Rooms:** for use also in auditorium and gymnasium.
- **Emergency Call Feature.**
- **Underwriters' Approved.**

The RAULAND S81 System is designed to remain modern for years. It offers unusual flexibility, superb tone quality and trouble-free dependability. Let us show you, without obligation, how RAULAND Centralized Sound can benefit your school and save you money. Write us today for complete details.

RAULAND-BORG CORPORATION
3523-E ADDISON ST., CHICAGO 18, ILLINOIS

OVER 1500 SCHOOLS ARE EQUIPPED WITH

Rauland

SOUND AND INTERCOMMUNICATION

SE-41

For that Extra Seating you often need in Your Gym!



Economy and flexibility, plus safety, are yours when you install Berlin ALL-STEEL indoor portable bleachers. They're easy to handle, simple to erect and dismantle and you can add to your original installation at any time in number of tiers and length of bleachers . . . an inexpensive solution to providing that extra seating you often need in your gymnasium. Economy is effected by simplified design and mass production techniques, developed in one of the largest and most modern steel fabricating plants in the Midwest. Complete interchangeability of sections make the storage or set-up simple and fool-proof. Write for complete details.

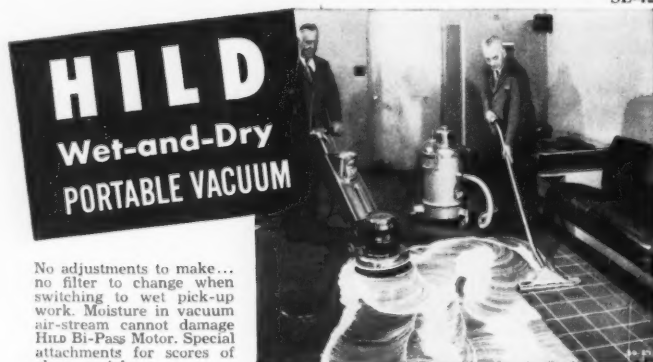
BERLIN

SEATING
ENGINEERS

Berlin Chapman Company also manufactures Ex-A-Way Bleachers and Berlin Type "C" Permanent Grandstands that are famous for economical seating. Write for details and location of existing stands.

BERLIN • WISCONSIN

SE-42



No adjustments to make... no filter to change when switching to wet pick-up work. Moisture in vacuum air-stream cannot damage Hild Bi-Pass Motor. Special attachments for scores of clean-up jobs.

LOOK AT ALL THE JOBS IT CAN DO FOR YOU!

- Sweeps floors "with air!"
 - Takes up scrubbing solution from floors...no rinsing or mopping.
 - Vacuums dust from ceilings, walls, blinds, overhead pipes, air ducts, motors, etc. Hi-up Extension eliminates use of ladders or scaffolds.
 - Dries areas flooded by overflowing toilets, etc.
 - Vacuums rugs, carpets and upholstery.
- ...saves time and trouble on scores of other jobs.



\$500 IN CASH PRIZES!

Your old floor, rug or carpet machine may win in Hild's 25th Anniversary "Oldest Floor Machine Contest." Send for entry blank.

HILD FLOOR MACHINE CO.
740 W. Washington Blvd., Chicago 6, Ill.

☐ Send circular on Hild Vacuum

Name _____

Address _____

City _____ State _____ SE-7

Duplicator

SE-220

Has Been Streamlined



The new Ditto D-45 Office Duplicator incorporates some new design features. The new machine is five inches lower, and its stand is six inches deep. This seats the operator naturally, it puts the finished copy tray at her easiest reach, and it puts finished copies directly in line with her gaze, for constant, easy check on copy production.

DITTO, Inc., 648 S. Oakley Blvd., Chicago 12, Ill.

Roof Treatment

SE-221

Can Be Applied in Rainy Weather



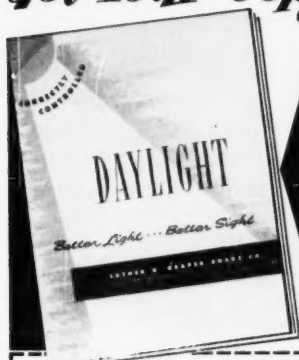
School maintenance men needn't wait for dry weather to stop roof leaks if they use the new Wet Weather Seal-Kote. This roof treatment is made of asphalt and asbestos plus special penetrating oils which cut through surface moisture and stop leaks. It is applied with a brush and is ready for use without mixing or heating.

Another new product, Wet Weather Seal-Kote Plastic Roof Cement, is for use in patching holes, cracks and blisters and repairing flashings, firewalls, and gutters during damp or rainy weather. Being of paste consistency, it is applied with a trowel and is recommended for use in conjunction with Wet Weather Seal-Kote.

PARAMOUNT INDUSTRIAL PRODUCTS Co., University Center Station, Cleveland 6, Ohio.

Got Your Copy Yet?

SE-61



HERE'S THE
**COMPLETE
DRAPER
Darkening
and
Shading
MANUAL**
Free!

**20 PAGES... OVER 75 ILLUSTRATIONS
TO AID YOUR SHADE PLANNING!**

A leader in the shade industry for over fifty years, Draper now presents its complete line of Sight-Saving Translucent and Durable Darkening Shades in this helpful catalog. Today, modern window construction and highly developed visual aids programs demand carefully planned shading... Better Light for Better Sight! Send for your copy of the Draper Manual today. Address: P. O. Box 380—Spiceland, Indiana.

LUTHER O. DRAPER SHADE CO.

SE-62



Geerpres wringers not only take the drudgery out of mop-wringing but give you cleaner floors with less effort and at lower cost.

- ★ No slop or splash (squeezes "down" — not "out").
- ★ Wrings mops just as dry or damp as you wish.
- ★ Keeps janitors happy.
- ★ Saves mops (nothing to catch mop strings).
- ★ Long-life heavy-duty construction.
- ★ Light weight, easy to roll along.
- ★ Ball-bearing rubber casters.
- ★ More water capacity.
- ★ Takes minimum storage space.



Single and
twin tank units for
8 to 16, 16 to 24, and
24 to 36 oz. mops.

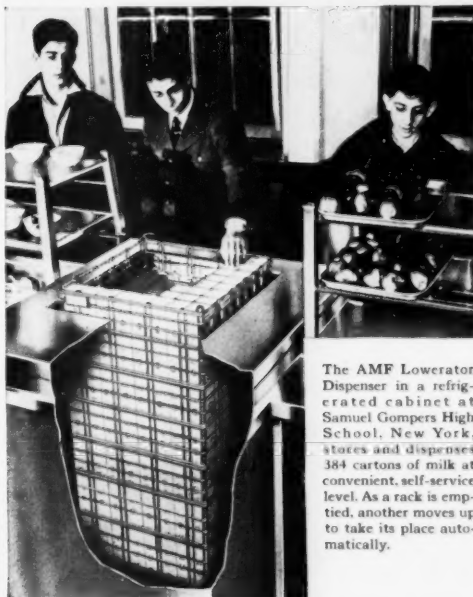
GEERPRES—the
wringers with the
amazing service
record—are now
produced in our
new and larger
plant.

GEERPRES WRINGER, INC.

Manufacturers of High Grade Mopping Equipment

P. O. Box 658 Muskegon, Michigan

AVOID LUNCH-HOUR CONFUSION —AUTOMATICALLY



The AMF Lowerator Dispenser in a refrigerated cabinet at Samuel Gompers High School, New York, stores and dispenses 384 cartons of milk at convenient, self-service level. As a rack is emptied, another moves up to take its place automatically.

Avoid the confusion and delay of constantly replenishing milk during serving periods. The AMF Lowerator Dispenser, installed in a refrigerated cabinet, keeps an adequate supply of properly chilled milk within easy reach of the students. This space-saving unit combines sanitary storage with automatic dispensing for faster, more efficient service.

End your confusion automatically! There are AMF Lowerator Dispensers for every requirement—heated, unheated or refrigerated for china, glasses or trays. You can install the in-counter units at convenient locations in your Food Service Layout; or move any of the floor units wherever china is needed. Consult your kitchen equipment dealer for the units designed for your needs or write for catalogs.

**SAVE SPACE • SPEED SERVICE
REDUCE BREAKAGE**



AMERICAN MACHINE & FOUNDRY COMPANY
485 Fifth Avenue, New York 17, N. Y.

Western Distributor—Dohrmann Commercial Co.

YOUR SCHOOL'S BLEACHERS should be...

- ★ portable
- ★ expandable
- ★ demountable
- ★ comfortable
- ★ safe
- ★ for indoor and outdoor use



SICO BLEACHERS HAVE ALL THESE FEATURES!



Sico Portable Steel Bleachers can be towed intact to new locations, dismantled and remounted for indoor and outdoor events, expanded with no alterations, and will provide a 25% to 30% seating capacity gain for the mere cost of extra seat and foot-boards. **Certified Load Test conducted by the Twin City Testing and Engineering Laboratories!**

Write today for free illustrated brochure, complete with specifications—

SEATING, INCORPORATED

6043 Pillsbury Ave., Minneapolis, Minnesota

MANUFACTURERS' CATALOGS

SE-301 Repairing, Maintaining Floors

Floors Without Flaws. This 12-page practical guide for economical and efficient care of floors in schools and colleges covers the conditioning, repairing and maintenance methods for the widest variety of floor materials—concrete, asphalt tile, cork, linoleum, magnesite, terrazzo, and wood. A. C. HORN Co., Inc., Tenth St. & 44 Ave., Long Island City 1, N. Y.

SE-302 Linings for Fireboxes

Plibrico Refractory Products for Firebox and Other Heating Boilers. This bulletin covers the application of Plibrico monolithic linings to firebox and similar types of heating boilers. The catalog covers air-cooled as well as solid refractory construction. Also included are complete engineer's specifications for the refractory lining and outside wall construction for boilers of this type. PLIBRICO JOINTLESS FIREBRICK Co., 1800 Kingsbury St., Chicago, Ill.

SE-303 Lighting Control Boards

Kliegboards for Lighting Control. The Kliegboards shown in this catalog are self-contained units of various designs with switching, circuiting, connecting, dimming, and associated electrical devices conforming to needs where variable intensity and distribution of light is desired. Complete specifications, wiring diagrams, and descriptions are included. KLIIEGL BROS., UNIVERSAL ELECTRIC STAGE LIGHTING CO., INC., 321 W. 50 St., New York 19, N. Y.

SE-304 Commercial Ranges

Vulcan Restaurant Ranges. A number of different model Vulcan ranges are shown in this new catalog. The ranges feature extra-wide ovens, individually controlled by Robertshaw thermostat, tops which can be varied to suit individual needs, heavy duty cast iron burners, three burner broilers, etc. VULCAN-HART MFG. Co., Inc., Bayard and Hamburg Sts., Baltimore 30, Md.

SE-305 Steam Generator

Bulletin #2000. This bulletin has been prepared especially for engineers and architects for their guidance in understanding the advance design features of the Preferred Unit Steam Generator. Numerous illustrations of the components and the unit including cutaway views for easy visual reference supplement the descriptions. The Preferred units can be fired by light oil, heavy oil, natural, and manufactured gas. PREFERRED UTILITIES MFG. CORP., 1860 Broadway, New York 23, N. Y.

SE-306 Garbage Disposer

Given Mfg. Co.'s new catalog describes their Waste King Pulverator which has been designed for heavy-duty garbage disposal. This unit pulverizes the waste at the dishwashing area, after which it flows directly to the sewer system. Top cone is of stainless steel for lowest cost installation. GIVEN MFG. Co., Dept. 7, 1250 Wilshire Blvd., Los Angeles 17, Calif.



Just 1/32" (pinhole size) faucet leak
MUSHROOMS into ATOMIC WASTE

of approximately 95,000 gallons
of water yearly—costing:

\$24.14

@ \$1.90 per M cubic feet

If a hot water faucet, then (actual)
FUEL WASTED heating 95,000 gallons
costs approximately:

\$88.91 if coal (\$879 lbs.)

\$91.08 if oil (793 gals.)

\$84.41 if gas (\$84.41 cu. ft.)

Above figures authenticated by Hackensack Water Co. and American Gas Association.

STOP this needless WASTE during today's MATERIAL and MANPOWER shortages with "EASAUER" Easy-Tite® that outwear ordinary faucet washers 6-to-1, thus SAVING labor on 5 REPEAT repairs, PLUS water and fuel, while prolonging the life of SCARCE fixtures.

PAT'D. "EASY-TITE"

FAUCET WASHERS

...a modern laboratory triumph, are compounded from du FONT NEOPRENE (tested up to 300° F.) instead of rubber—as without and DESTRUCTIVE HEAT common in present-day super-heating water systems—that formerly broke down washer's structure.

Built like a tire with fabric re-inforcement they resist the grinding, closing squeeze that SPLITS and MUSH ordinary washers out of shape...causing LEAKS.

Through combining NEOPRENE and FABRIC RE-INFORCEMENT they OUTWEAR ordinary washers 6-to-1 on hot or cold FAUCETS—thus you slash water, fuel and labor costs.

THE NEW "EASAUER" CATALOG



Editor G. just out, pictures over 2500 TRIPLE-WEAR plumbing REPAIR parts and Pat'd. Precision Tools. It's today's accepted buying guide for discriminating purchasing and maintenance personnel among thousands of top PLANTS, INSTITUTIONS and GOVT. AGENCIES—men rely on EASAUER repair materials. Send for your copy today!

Then too, there's a **SEXAUER TECHNICIAN** within quick call from coast-to-coast, who offers a special SURVEY service that sets up a schedule of the exact replacement parts required for your particular plumbing fixture—regardless of make or age and without obligation.

A postcard will bring him and your NEW Catalog promptly.

J. A. SEXAUER, MFG. CO., INC., Dept. X-72
2508-05 Third Avenue, New York 61.

as advertised in the **EVENING POST**

SEXAUER

WORLD'S LEADING SPECIALISTS IN
PLUMBING AND HEATING REPAIR PARTS

On smooth floors **OXCO'S**

Big Chief gives you

- **CLEANER SWEEPING**
- **IN LESS TIME**
- **AT LOWER COST**

Cut your maintenance costs with this economy sweep. Your own sanitary supply jobber will be glad to deliver Big Chiefs from his own stock—or get them for you—quick.



Here's why—

Cleaner Sweeping because BIG CHIEF has extra thick tufts of a long-trim filling material proven most durable in actual use and by exhaustive scientific "use" tests. Each full stroke of this pure horsehair and long-wearing SARAN combination easily moves light or medium heavy dirt . . . and dust as well. In less time because the wide flare design covers more floor surface. At lower cost because its performance matches the most expensive sweeps.

OXCO
BRUSHES
OX FIBRE BRUSH COMPANY, INC.
FREDERICK Established 1884 MARYLAND

SE-65

For Safety's Sake Use DAYTON SAFETY LADDERS



Sizes 3 feet to 16 feet in height (measured from ground to platform) with standard rubber safety shoes at no extra cost.

Maintenance men everywhere rely on Dayton Safety Ladders for maximum safety and convenience. Daytons are constructed of tested airplane spruce and reinforced with rigid steel supports to give great strength and lightness of weight.

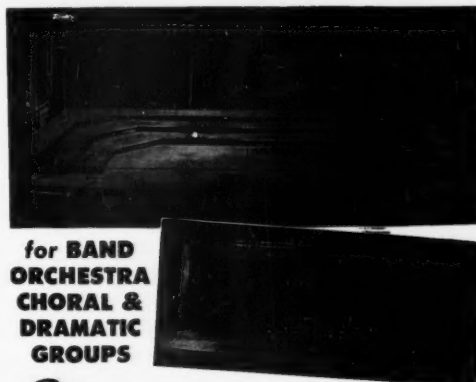
Handrails of steel guard the large roomy platform for added safety. Half of platform can be raised to form an extra step, when needed. These famous ladders can be set up instantly; are easy to carry and fold compactly for storing. Automatic locking feature insures safety while ladder is in use.

Write Dept. H for
Bulletin.

DAYTON SAFETY LADDER CO.
2339 GILBERT AVE. CINCINNATI, OHIO

In Canada—Safety Supply Company—Toronto

SE-66



for **BAND
ORCHESTRA
CHORAL &
DRAMATIC
GROUPS**

Mitchell FOLDING
PORTABLE STANDS

IMPROVE APPEARANCE AND PERFORMANCE

Add "Audience Appeal", assure better acoustics; better discipline; better direction. 3 or 4 elevations available. Sturdy, safe, easy to handle units with tubular steel folding legs . . . rigid when set up. Complete stand as shown in above pictures stores in a space 4' wide, 8' long and 6' high. You buy only as many units as you need to fit your requirements.

WRITE FOR COMPLETE INFORMATION

MITCHELL MFG. COMPANY

2726 S. 34TH STREET • MILWAUKEE, WIS.



"It's High Time We Re-study World Maps!"

says Dr. Howard R. Anderson,
Chief of Instructive Problems,
U.S. Office of Education . .



"World News Is Top News . . . Every Hour"

In these days of world-wide, perpetual crisis geo-politics makes the best of maps mandatory in every school. Hearne School Maps are designed with teachers' problems and simplified instruction in mind. In the teaching of social studies, where Hearne's Student Participation maps are in use, the teacher encourages the student to "learn by doing." Teachers, principals and school boards favor these maps because:

- 1 Cellophane coating permits marking with crayon and cleaning with damp cloth, just like a blackboard.
- 2 Location finder instantly locates any city, mountain or object.
- 3 They facilitate teacher's job and create interest in social studies.
- 4 Rugged construction makes Hearne Student Participation Maps a permanent investment.
- 5 Eight colors used, picking out oceans, boundaries, mountains, locations.
- 6 Instruction Outline, by eminent educators, enables student to combine information from other sources.
- 7 Student Participation Maps show population, land heights, sea depths, boundaries and major political divisions.
- 8 Maps mounted on spring rollers; roll up into lacquered aluminum case. Bottom moulding, stainless steel.

Any Hearne Map For 10-Day Free Trial

Order your choice of any hemisphere, Europe, Asia, Africa, North or South America, the world, United States, state, county, or city. Use in classes 10 days. If you can do without it, send it back . . . or send \$42.50 and it's yours.

HEARNE'S OFFICIAL SCHOOL MAPS

for Student Participation

Buying A School Map Without Our Exclusive Mechanical "Student Participation" Index is like Buying A Boat Without A Rudder.

FREE EXAMINATION ORDER FORM

Hearne Brothers (America's Largest Manufacturers of School and Commercial Maps)
23rd Floor National Bank Bldg., Detroit 26, Michigan

Without obligation on our part, send us map of _____

After 10 days' FREE use in our school, we'll return map or remit \$42.50. Prices on cloth, cellophane, spring rollers, stainless steel and labor are going up, so order today.

Your Name and Title _____

School _____ Address _____

City _____ Zone _____ State _____

FREE

SE-307 Catalog on Educational Films

Ideal Pictures Educational Film Order Catalogue for the 1952-53 School Year. This comprehensive catalog embraces a wide variety of subjects and covers all grade levels from primary to adult. IDEAL PICTURES, 65 E. South Water St., Chicago 1, Ill.

SE-308 West Indian Islands

Caribbean. 16mm sound. This film pictures life in British Guiana and British Honduras, where ancient traditions blend with modern customs, where problems of housing, education, and health must be solved if greater progress is to be achieved. A background of ritual drumming, ancient folk songs, traditional dance rhythms and the Calypso ballad-form points up the film. ENCYCLOPAEDIA BRITANNICA FILMS, INC., 1150 Wilmette Ave., Wilmette, Ill.

SE-309 Driver Education

Driver Training: Mastering the Gear Shift Lever. This high school driver education film clearly and graphically demonstrates the use of the gear shift lever in driving an automobile. Animated diagrams help in understanding the functions and positions of the lever. A detailed sequence shows the procedure of shifting gears and why it is important to observe a few simple precautions. BAILEY FILMS, INC., 6509 DeLongpre Ave., Hollywood 28, Calif.

SE-310 The Laplanders

Laplanders. 16mm sound. Middle grades geography and reading classes will be enriched by this film on the reindeer-tending Laplanders of northern Scandinavia. The picture portrays the dependence of the Lapps on the reindeer for food, clothing, and transportation. ENCYCLOPAEDIA BRITANNICA FILMS, INC., 1150 Wilmette Ave., Wilmette, Ill.

SE-311 Free Film Catalog

Free 16mm Sound Motion Pictures. The films listed in this catalog are educational and suitable for all age groups and curricula. Instructional films, technicolor productions, romantic legends of industry, and educational entertaining programs are available. UNITED WORLD FILMS, INC., 1445 Park Ave., New York 29, N. Y.

SE-312 Modern Britain

A Picture of Britain. 16mm Sound. An interesting social and industrial impression of modern Britain and her people, showing the British scene in industry, agriculture, science, etc. BRITISH INFORMATION SERVICES, 30 Rockefeller Plaza, New York 20, N. Y.

SE-313 Atomic Energy Filmstrip

Film Publishers, Inc. announces revision of its Atomic Energy Series of discussion filmstrips. This series consists of *One World or None*, both silent and sound versions, *How to Live With the Atom*, *World Control of Atomic Energy*, and *Up and Atom—Citizens Take Action*. FILM PUBLISHERS, INC., 25 Broad St., New York 4, N. Y.

Ionía "SAFE-TEE" FOLDING CHAIRS



CAN'T TIP, COLLAPSE, UPSET or SLIDE
Rounded Seat Corners! Metal Rubber-Covered Leg Caps!

Here's a safety all steel, indestructible folding chair that adds lounge chair comfort to sturdy dependability. Welded tubular frame . . . special safety construction . . . baked enamel finish . . . choice of colors. Cushion rubber feet . . . noiseless action. A nationally recognized value!

IONIA MFG. CO. • IONIA, MICH.

SE-69



Brillo Solid Disc Pads stay firmly in place—will not buckle. Rest brush of machine on pad . . . operate machine as usual.

100% EFFECTIVE FLOOR CLEANER
 . . . waxes whole surface evenly!

USE BRILLO
SOLID-DISC STEEL WOOL FLOOR PADS

Extra-resilient, solid-disc Brillo pads actually work on more floor surface. Compressed from quality cross-stranded steel wool, Brillo pads polish evenly in every direction. Sizes to fit all machines.

— Send for **FREE Folder!** —
 Brillo Mfg. Co., Dept. M,
 60 John St., B'klyn. 1, N. Y.

Send free folder on low-cost Brillo floor care.

Name _____
 Street _____
 City & State _____

For Greater Protection

WATERLOX PRODUCTS

For Greater Satisfaction

WATERLOX TRANSPARENT

A tung oil product which seals out moisture while producing a natural Finish on all woods which is as beautiful as it is durable!

WATERLOX SATIN FINISH

A natural wood Finish with a wax-like luster, and satiny appearance. Its tung oil base adds toughness and ability to seal out moisture.

WATERLOX Cement Floor Stain — and — Water Repellent

Write For Details!

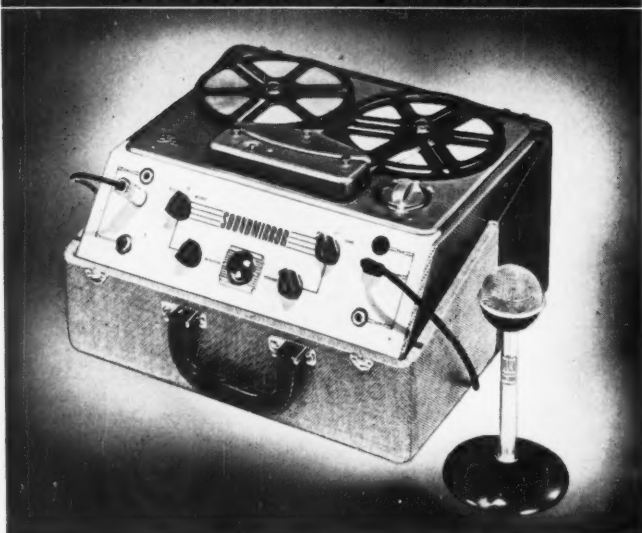
WATERLOX

DIVISION OF
 THE EMPIRE VARNISH COMPANY

7616 East 78th St.

Cleveland 1, Ohio

SOUNDMIRROR[®]...Tape Recording for schools at its best!



Rugged-Foolproof-Easy-to-use...

Soundmirror brings a new dimension to teaching techniques

Soundmirror makes it easy to put tape recording to work in the schoolroom. Soundmirror is the professional quality tape recorder that school people find so easy to use. It is engineered both mechanically and electrically for top-grade performance. Soundmirror is ruggedly built—designed to give trouble-free fidelity reproduction with a wide frequency range. Foolproof erase control makes accidental erasures impossible.

Check these points of Soundmirror's leadership:

- ✓ **Simple to use.** Single knob control operation, easy for student or teacher to operate.
- ✓ **Sturdy yet lightweight.** Soundmirror weighs only 33 pounds yet is exceptionally sturdy.
- ✓ **Excellent tone quality.** Covers a tone range equivalent to a fine home radio. Reproduces voice and music with exceptional fidelity.
- ✓ **Engineering leadership.** Soundmirror is a product of The Brush Development Co., leaders in magnetic recording for more than 10 years.
- ✓ **Backed by on-the-job experience.** Thousands of Soundmirrors are at present in schoolroom use. Experience gained from the study of these applications is engineered and designed into today's Soundmirrors.

Find out more about the use of SOUNDMIRROR in schools.
Mail this coupon **TODAY**.

The Brush Development Company, Dept. E-7
3405 Perkins Avenue, Cleveland 14, Ohio
Please send full information about SOUNDMIRROR.

Name

Name of School

Street

City Zone State

AUDIO-VISUAL AIDS

SE-314 Modern School Planning

One of the first 16mm color sound motion pictures on modern school planning, *Design for Learning*, has been released for screening to architects, school superintendents, school boards, school building committees, etc. Emphasis on the importance of the selection of equipment for the comfort and convenience of students makes the film story an important one. HERMAN NELSON DIV., AMERICAN AIR FILTER CO., INC., Moline, Ill.

SE-315 Geometry

The difficulties of teaching plane geometry have been mitigated with the introduction of a new series of teaching films in 16mm sound under the general title of *Practical Geometry*. Some of the phases of geometry dealt with in the films are: *Similar Triangles, Quadrilaterals, The Circle, Chords & Tangents of Circles, Arcs and Angles in Circles, Areas, The Pythagorean Theorem, Lines and Angles, Congruent Figures, Indirect Measurement, Polygons, and Properties of Triangles*. KNOWLEDGE BUILDERS CLASSROOM FILMS, Lowell Ave. & Cherry Lane, Floral Park, N. Y.

SE-316 Silk Screen Printing

Silk Screen Textile Printing, 16mm sound. This demonstration begins with the selection of a design for a dress material and shows how the design is translated into a silk screen stencil and printed on the textile. Uses of swivel stencil knife, lacquer film, lithographer's crayon, liquid tusche, registration board, etc., are depicted. BAILEY FILMS, INC., 6509 DeLongpre Ave., Hollywood 28, Calif.

SE-317 Community Living

Our Community, 16mm sound, color. The everyday life of a ten-year-old boy is used to illustrate the many community institutions, their services and activities. Produced for middle grade social studies. ENCYCLOPEDIA BRITANNICA FILMS, INC., 1150 Wilmette Ave., Wilmette, Ill.

SE-318 Declaration of Independence

Declaration of Independence, Filmstrip in color. This filmstrip is a faithful summary of the contents of the Declaration. Particularly suited to fit our national holiday observations, history classes, and citizenship discussions. BAILEY FILMS, INC., 6509 DeLongpre Ave., Hollywood 28, Calif.

SE-319 Film Catalog

Before You Purchase Any More Educational Films—Please Read This! This new catalog tells how you can rent, purchase and preview the latest films produced by Coronet. CORONET FILMS, Coronet Building, Chicago 1, Ill.

SE-320 English Composition

Writing the Paragraph. This set of eight teaching filmstrips on English Composition is designed for the fifth to twelfth grade English classes. Each section is in two parts and titles include: *Words, Your Control of The Simple Sentence, Using Sentences With More Than One Idea, and Building the Paragraph*. FILM PUBLISHERS, INC., 25 Broad St., New York 4, N. Y.

SAVE ON ROTARY MACHINE BRUSHES

YOU CAN ORDER THESE
SCRUBBING MACHINE
BRUSHES OF THE
FOLLOWING MATERIALS
In 10" to 19" diameters.

Bassine Fiber Trim 2"
Pure Palmetto Trim 2"
Mixed Palmyra
& Bassine Trim 2"

POLISHING FIBERS

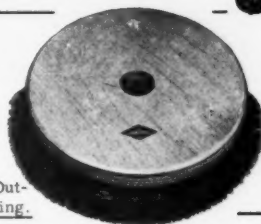
In 10" to 19" diameters.

White Tampico Trim 1-1/2"
Union Mixture Trim 1-1/2"
Gray Tampico Trim 1-1/2"

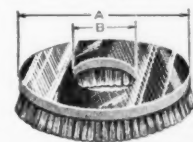
WIRE BRUSHES

30-gauge Steel Heavily
Filled Trim 1-1/2"
20-gauge Steel Extra
Course Trim 1-1/2"
Light Wire Short Trim
For Holding Steel Wool.
30-gauge---sparsely
filled Trim 5/8"
Steel Wool Discs--
Lambs Wool Bonnets.
Send in your old Aluminum
Blocks to your Jobber for
Refilling----Fiber, Nylon
or your designation.

**EXTRA HEAVY FILLED
FOR LONG WEAR AND
ECONOMY**



All FLO-PAC Features Make this the Outstanding Brush for Scrubbing and Polishing.



Our Scrubs are built on an all hardwood block of 9-ply, Selected Maple---held with Water Proof Glue and sealed under pressure. Full 1" thick. You get your scrubbing or polishing fibers machine staple set with steel wire. Yes, you get definitely GRADE--"Superior" Scrubbing and Polishing Fibers; and another plus--for operating your machine with FLO-PAC Scrubs, it's balanced for smooth easy performance. All brushes are staple set with rust resistant steel wire.

HOW TO ORDER

Measure your old brush as shown.

A - Actual outside diameter of old block.

B - Actual diameter of center hole in your old block.

Order from Your School Supply Jobber.



YARN MOPS - TAMPICO & WYNENE FLOOR BRUSHES
RADIATOR BRUSHES - WET MOPS

148

FLOUR CITY BRUSH CO.

1501 4th Ave. South - Minneapolis 4, Minn

PACIFIC COAST BRUSH CO.

1307 Santa Fe Ave. Los Angeles 21, Calif

SE-79

*American
Folding Chairs*

**NEW
IMPROVED
DESIGN!**



BEST FOR EVERY FOLDING CHAIR PURPOSE!

- DURABLE—strong steel frame, reinforced
- SAFE—no tipping, pinching, snagging hazards
- COMFORTABLE—extra-wide, extra-deep seats and backs
- CONVENIENT—fold quietly, quickly, compactly
- RUBBER SHOES—long-life, replaceable
- SEAT STYLES—formed plywood with durable lacquer finish; or vinyl-plastic upholstered

OVER EIGHT MILLION IN USE!

WRITE FOR
DESCRIPTIONS
AND PRICES

American Seating Company

Grand Rapids 2, Michigan

Branch Offices and Distributors in Principal Cities

SE-80

**NEW
INTERLOCKING POWERSTAT
LIGHT DIMMING EQUIPMENT**



The new D5500H POWERSTAT Dimmers are designed for 5 inch center mounting... can be located in any position... have positive drive... easily serviced.

WRITE FOR BULLETIN D4521

THE SUPERIOR ELECTRIC COMPANY

3072 Demers Avenue, Bristol, Connecticut

- ☐ Send Bulletin D4521
☐ Send information on complete POWERSTAT Dimmer line
☐ Recommend a reputable switchboard manufacturer

Name _____ Title _____
Affiliation _____
Address _____
City _____ Zone _____ State _____





BECKLEY-CARDY CHICAGO

You will find this Beckley-Cardy SCHOOL BUYER'S GUIDE

*A Valuable
Purchasing Aid*

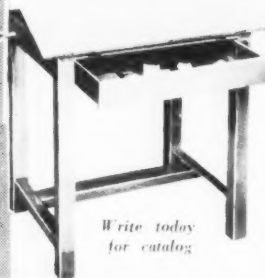
**USE IT NOW. Order
early—be sure of full
selection and prompt
delivery**

Write FOR THIS NEW
NO. 94 CATALOG IF YOUR COPY HAS NOT YET ARRIVED
BECKLEY-CARDY, 1632 INDIANA AVE., CHICAGO

SE-83

make one permanent* investment.
... forget about replacements.

STACOR 4-POST DRAWING TABLE



Write today
for catalog



LIFETIME STEEL CONSTRUCTION

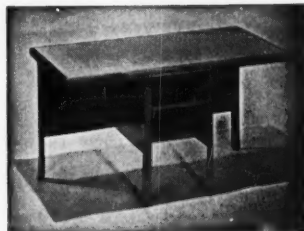
Rigid welded steel construction assures amazing durability under the heaviest use
• table top adjusts to comfortable working angle • selected soft wood top • hard baked grey hammerstone enamel finish • rubber feet prevent marring of floors • board sizes, 2 heights

STACOR EQUIPMENT COMPANY
Manufacturers of Lifetime Steel Blue Print Filing
Cabinets, Drafting Tables, Tracing Tables, Etc.
475 TROY AVE., BROOKLYN 3, NEW YORK

SE-84

MORE WORK-SPACE!

"Airplane
Tables!"
Available
NOW with
PLASTIC
Tops!



Flexible! Functional! Book shelves separate 2 students working at same desk, replace idle aisle space. Use 4, 6 or 8 units to make 1 large work area for group work. "Airplane Tables" eliminate extra tables and chairs, equalize per-unit seating cost. Ideal for primary grades through senior high. Approved as standard equipment by educators everywhere.

Top sizes: 21" x 42" & 21" x 48". Table heights: 21", 23", 25" & 27". Top is built up 1 1/16" stock with Birch face ply & matching Birch or Maple banded edge. Also available in popular Fibersin plastic. Metals: Baked on enamel, taupe or beige. Wood finishes: Natural or School Brown.



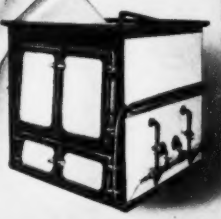
2 tables back-to-back

Write for full details!

AMERICAN DESK MFG. CO.
Temple, Texas

TEEKORATOR
THE PERFECT
Incinerator
ARCHITECTS MANUAL OF WASTE DISPOSAL
For SCHOOLS
For HOSPITALS
For RESTAURANTS
For APARTMENTS
For HOTELS
For HOMES
For FACTORIES

NO SPECIAL CHIMNEY REQUIRED



TEEKORATOR CO.
INCINERATORS
35 KLINK ROAD • ROCHESTER 10, NEW YORK
— REPRESENTATIVES WANTED —

SE-88

BEFORE**AFTER**

Modernize your present old-style furniture into movable, functional units at a fraction of the cost of new furniture by using our all-welded tubular steel desk and chair legs. Write now for further information on our proven method.

KNIGHT BROS.
MANUFACTURING COMPANY
7 Harris Court, Worcester, Mass.

Manufacturers of the "88" new school desk and chair
Laminated plastic tops

It pays to buy
the **VERY BEST**
...to fight this
CONSTANT, COSTLY PEST...

DIRTY FLOORS

Maintenance men know that labor and materials are the "big cost" items in the daily fight against DIRTY FLOORS. That's why the labor-saving, material-saving features of WHITE equipment are so important. Even if WHITE costs more (which it doesn't) — it would pay you to insist on WHITE efficiency in every piece of floor cleaning equipment you buy. See the complete WHITE line at your dealer's... see why you should buy WHITE.

WHITE MOP WRINGER CO.

7 Mohawk St., Fultonville, N. Y.



the janitor's friend

WHITE**FLOOR CLEANING EQUIPMENT**

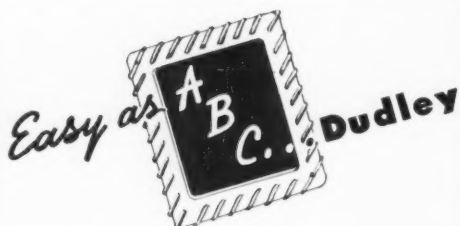
Famous White Oval Bucket gives more room to wash the mop...
Rol Ovl gives more pressure to wring it! 16- and 26-quart sizes, with gliders or rubber casters.

Write for CATALOG No. 150

WHITEY MOFZUM SAYS:

It's **RIGHT**
... if it's

**WHITE****A COMPLETE LINE OF FLOOR CLEANING EQUIPMENT**



School locker control is **THIS** easy when you install Dudley Locks, schoolwide. No more "cut-offs" when keys are lost or combinations are forgotten.

You can get precision-built Dudley Locks for your school without budget expense. Write for details of the Dudley Self-Financing Plan, and for catalog folder.



P-570—rotating dial combination padlock . . . Master-Key control

RD-2—rotating dial combination padlock . . . Master-Chart control

DUDLEY LOCK CORPORATION

Dept. 719, Crystal Lake, Illinois

SE-98

Merchandising and Sales Opportunities for Junior Executives

A large and nationally known company offers excellent opportunities for junior executives with experience in the school equipment or supply field. Applicants preferably between the ages of 28-35 should possess the following qualifications:

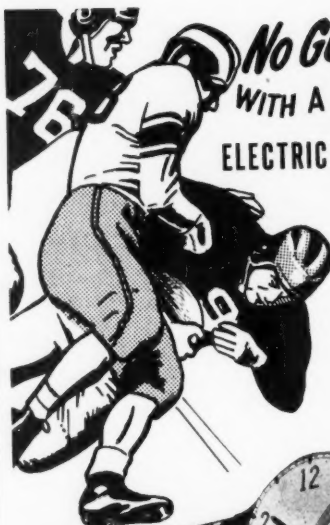
Working knowledge of merchandising, marketing, methods and policies including merchandise specifications and demands by items . . . mark-up policies and inventory controls as well as source relations, selling techniques and catalog organization.

Submit background and qualifications in writing to

Box 98, School Executive—School Equipment News

All replies confidential.

No GUESSWORK WITH A NADEN ELECTRIC SCOREBOARD



NADEN "Boards", recognized from coast to coast, offer accurate "on top of the play" scoring. Two sets of controls insure accuracy direct from line of scrimmage on "down" and "yards to go" and the official timer operates "time". Factory installed and designed for simple maintenance, the NADEN BOARD offers "natural numerals" for easy reading and a design to "fit your field". Be ready for the season — it is not too late to order now! Write for details.

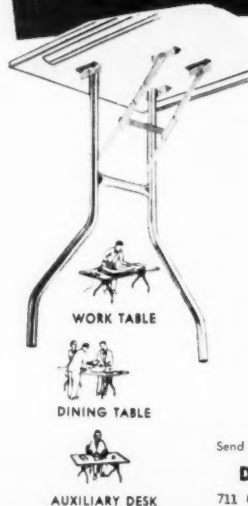
NADEN AND SONS

Webster City, Iowa



SE-100

THESE NEW VERSATILE Steel Folding Legs MAKE TABLES, PLATFORMS, WORK BENCHES, ETC.



Now . . . save 40% and more . . . have your own maintenance men make tables, auxiliary desks, etc. quickly and easily for every school use . . . by attaching sturdy Atlas Folding Legs to wood, plywood, masonite, etc. Electrically-welded legs fold easily for storage, lock into position when opened. Screws, simple instructions included.

ALSO USE AS REPLACEMENT LEGS FOR OLD TABLES, ETC.

HEIGHTS: 26"-30"-34"
Matching Bench Legs Available

Sample set
\$9.95
ppd.

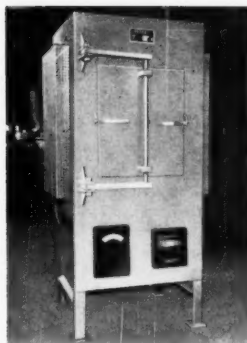
Send for quantity prices and literature.

Dept. SE JOYLAND

711 Cedar Grove Rd., Newtown Square, Pa.

THE SCHOOL EXECUTIVE for JULY, 1952

SE-93



Heavy Duty
Dependable Units
for schools
preferring
permanent
equipment

PERECO Electric Kilns

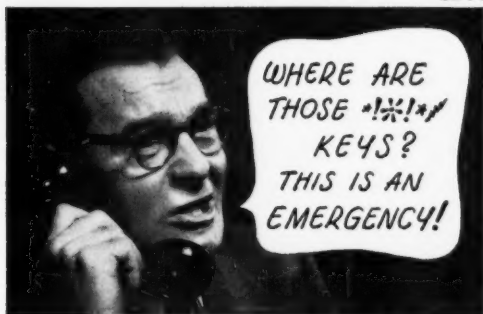
This is not flimsy hobby equipment. It is full-fledged school equipment built to the same heavy-duty quality standards of kilns used by industry. This Model MC-7800-SP connects directly across-the-line for intermittent service in school shops. Safe and simple to operate, it provides clean electric heat up to 2200° to 2300° F., with accurate control of firing cycles. Supplied with manual controls, including a 100-step power-input controller and magnetic contactor. Working chamber is 24" long, 18" wide, and 18" high. Many other models of Pereco Kilns also available. Write



P E R E N Y
EQUIPMENT COMPANY

Dept. J, 893 Chambers Rd., Columbus 12, Ohio

SE-94



**THAT'S THE PROBLEM—
HERE'S THE ANSWER!**



- Any key instantly available — lost keys never a problem
- Neat, compact metal cabinet — easy to set up and operate
- Expansion unlimited
- Control by secret code

Why not send for **FREE** color brochure, "The Missing Link" which tells you all about our equipment. It's yours without obligation — address requests to

P. O. MOORE, Inc., Room 640, 300 Fourth Ave., N. Y. 10, N. Y.

THE SCHOOL EXECUTIVE for JULY, 1952

SE-95

NORCOR

TUBULAR DESKS AND CHAIRS

complete
range of
sizes*



From the tiny toddler of the kindergarten to the burly athlete of college, there is a NORCOR Tubular Desk and Chair perfectly sized and proportioned for every normal pupil. No seldom made adjustments are needed; experience has shown the correct proportions of each size for every grade—an easy exchange from room to room may be required for a few abnormally-sized pupils—but the general average will remain consistent from year to year.

Better seating, better school posture, greater comfort for every pupil are obtained with NORCOR Tubular Desks and Chairs. Consult your NORCOR distributor—or write direct for full information.



THE NORCOR MANUFACTURING COMPANY
DEPT. E GREEN BAY, WISCONSIN

FACTORIES: GREEN BAY, WIS., PORTSMOUTH, N. H., GILLET, WIS.

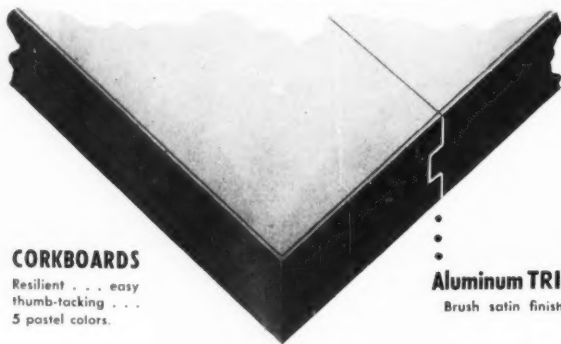
INDEX TO ADVERTISERS

*American City Bureau	24	Finnell System, Inc.	94	*Master Lock Co.	101
American Desk Mfg. Co.	114	Flour City Brush Co.	113	*Medart Products, Inc., Fred	10
American Floor Products Co.	101	*Fuller Brush Co.	83	Miami Window Corp.	102
*American Floor Surfacing Machine Co.	37	Geerpres Wringer, Inc.	107	*Michaels Art Bronze Co., Inc.	96
American Machine & Foundry Co.	107	Given Mfg. Co.	81	Minneapolis-Honeywell Regulator Co.	119
*American Seating Co.	113	Gaugler Machine Co., C. L.	103	*Mitchell Mfg. Co.	109
*American Type Founders Sales Corp.	35	Griggs Equipment Co.	84	Moore Co., P. O.	117
Applause Products	97	*Guth Co., The Edwin F.	31	Multi-Clean Products, Inc.	27
Barber-Colman Co.	36	Hearne Brothers	110	Nailen and Sons	116
Beckley-Carly Co.	114	Hild Floor Machine Co.	106	National Cornice Works	97
Bennett Mfg. Co.	100	*Horn Bros. Co.	26	*National Lock Co.	99
Berlin Chapman Co.	106	Hotpoint, Inc.	6	*National School Furniture Co.	32
*Blodgett Co., The G. S.	98	*Howe Folding Furniture, Inc.	97	*Nelson Division, Herman	12, 13
Brener Electric Mfg. Co.	30	Institutional Sales Co.	116	*Neshitt, Inc., John J.	38
Brillo Mfg. Co.	111	*International Business Machines	15	Nestle Co., Inc., The	103
Brush Development Co.	112	Ionia Mfg. Co.	111	*Nucor Mfg. Co.	117
*Claridge Equipment Co.	118	*Irwin Seating Co.	34	Old Town Corp.	86
*Curtis Lighting, Inc.	23	*Johns-Manville	120	Os Fibre Brush Co., Inc.	109
Dayton Safety Ladder Co.	109	*Keyes Fibre Sales Co.	82	*Pereny Equipment Co.	117
Don Company, Edward	103	Knight Bros. Mfg. Co.	115	*Powers Regulator Co.	28
Draper Shade Co., Luther O.	107	Lawlor Co., S. C.	105	*Radio Corporation of America, Educational Services Dept.	17
*Dudley Lock Corp.	116			Rauland-Borg Corp.	105
*Duke Mfg. Co.	92			*Richards-Wilcox Mfg. Co.	85
*Empire Varnish Co., Waterloo Div.	111			Roddis Plywood Corp.	14
*Endur Paint Co.	99			*Rowles Co., E. W. A.	87

SE-96

Only Duracite Chalkboards will give
 $\frac{1}{2}$ inch thickness, with tongue and groove joint, AND .007 thick
 heat applied synthetic plastic surface having silicon carbide in
 suspension thruout. Choose proven Clearcite Green or Black.

Also GRAPHOLITE and STRUCTOPLATE Chalkboards



CORKBOARDS

Resilient . . . easy
 thumb-tacking . . .
 5 pastel colors.

Aluminum TRIM

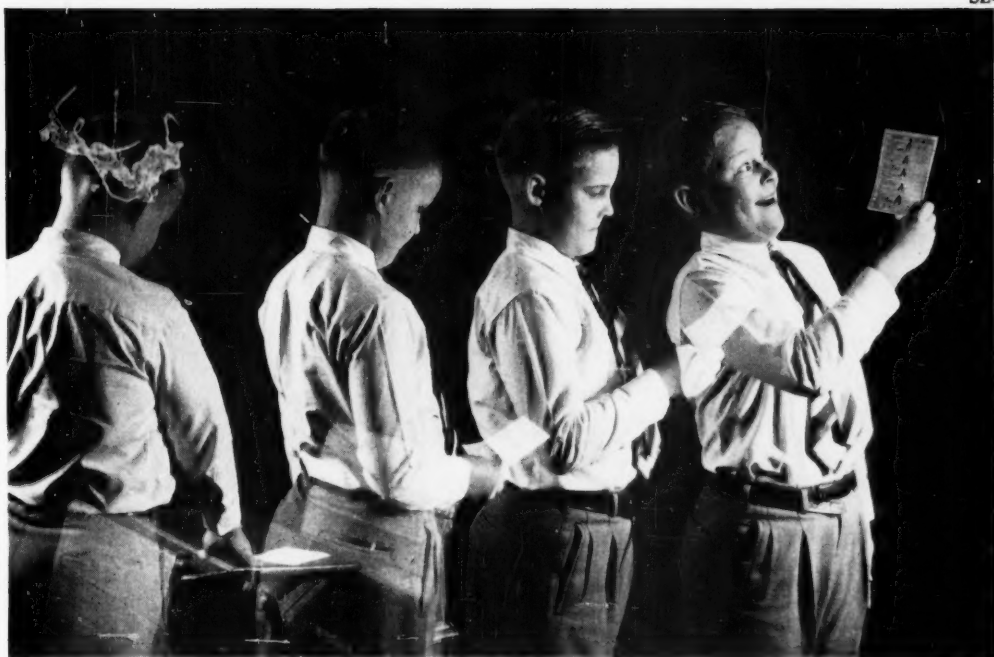
Brush satin finish.

WRITE
 For Complete Catalog

Claridge
 EQUIPMENT COMPANY

Sanymetal Products Co., Inc.	80
Seating, Inc.	108
Sexauer Mfg. Co., J. A.	108
*Shwayder Bros., Inc.	20
*Skilsaw, Inc.	25
Snyder Tank Corp.	101
Solar-Sturges Mfg. Co.	15
Southern Equipment Co.	2
Stacor Equipment Co.	114
Star Mfg. Co.	91
Superior Electric Co.	113
Tackator Co.	115
*Trane Co., The	16
Trimco Mfg. Co., The	82
Up-Right Scaffold Co.	33
*Virco Mfg. Corp.	99
Virginia Metal Products Corp.	104
*Vogel-Peterson Co.	105
*Wakefield Brass Co., F. W.	8
Wayne Works	14
White Mop-Wringer Co.	115

*Catalogs or condensed catalog data of
 these firms are filed in THE AMERI-
 CAN SCHOOL AND UNIVERSITY
 1951-52 Edition.



Why you can always expect better results from Honeywell Controls

TODAY, students in hundreds of Honeywell-equipped schools are enjoying the ideal conditions that level temperatures, adequate fresh air and proper humidity provide. In these schools, Honeywell controls are *consistently proving more accurate, more dependable!*

By choosing Honeywell, you can be *sure* the right kind of system for your particular school will be installed—be it pneumatic, electric or electronic—for Honeywell makes them all! And Honeywell can furnish controls for your heating, ventilating, hot water, refrigeration or air conditioning equipment. This valuable “complete line” service ends troublesome overlapping of responsibility and gives you the most efficient performance possible from your equipment!

With Honeywell, you get technical advice and expert installation from the world's finest specialists in controls. And when you want service, Honeywell is as close as your telephone with 91 offices from coast to coast—the largest service staff in the industry.

Whether you are building a new school or modernizing your present one, Honeywell can help you. Phone your nearest Honeywell office today, or if you prefer some informative literature, write Honeywell, Dept. SN-7-11, Minneapolis 8, Minn.

*Specially designed
for classrooms!*



The Honeywell Gradustat—the newest development in pneumatic thermostats—is highly accurate and dependable! Its exclusive design features make it noiseless, dustproof and tamper-proof and thus ideal for classroom installation! The Gradustat meters heat to the room's exact needs! With one in every classroom, your students work in comfort regardless of weather changes or other variables.

MINNEAPOLIS
Honeywell



First in Controls

Johns-Manville **TERRAFLEX**

the vinyl plastic-asbestos floor tile,
offers advantages never before
combined in one type of flooring



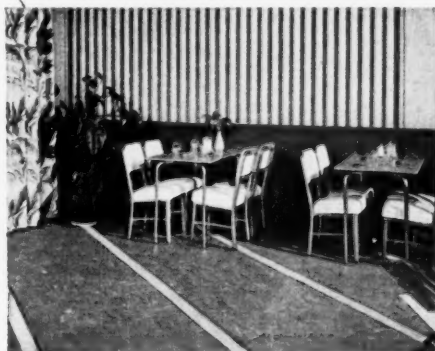
COLORS ARE CLEARER

The vivid colors of Johns-Manville Terraflex Flooring have a clarity and warmth that add beauty to any interior—keep their *first day newness* for a lifetime. The wide range of marbled colors in harmonious and contrasting shades offers unlimited freedom of design.



EASIER TO MAINTAIN

Terraflex is resistant to grease and oil, alkaline moisture and mild acid solutions. It is easy to clean and even caustic soaps which permanently damage other types of resilient floorings will not affect Terraflex—it cannot "wash out." Many different decorative inserts are available to add interest and individuality to floor design. Knife-fork and teakettle inserts are shown above. Moisture-resistant, Terraflex is ideal for laying over radiant-heated concrete floors in direct contact with the ground.



WILL LAST A LIFETIME

Although Terraflex is extremely resilient, it will outwear other types of decorative floor coverings two to one. With its superior flexibility it conforms to uneven surfaces and absorbs normal floor play. It does not crack, curl, become loose, or brittle, or shrink around the edges. It does not become fuzzy or scratch or lose its sheen from constant wear.

FOR THE BEST there is in flooring—look to Johns-Manville Terraflex.

Send for a free brochure showing the full color line of Johns-Manville Terraflex and Asphalt Tile. Write Johns-Manville, Box 60, New York 16, N. Y.



Johns-Manville

TERRAFLEX AND ASPHALT TILE FLOORING